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RECUEIL DES PUBLICATIONS DU CHU UCL NAMUR

N°8 - DEUXIÈME QUADRIMESTRE 2020

Dinant • Godinne • Sainte-Elisabeth

CHU UCL NAMUR

SUPPLÉMENT
PREMIER QUADRIMESTRE 2020

Consentement du patient : quels enjeux éthiques ?

Jacquemin D, Daloze C, Damoiseaux Ph, Evrard P, Glorieux P**, Gaziaux E, Gourdin E, Gillard L, Longneaux JM, Maloteaux JM, Mathieu I, Périlleux T, Pirenne B,** Rouard Ph**.**

Références	*Doi*	*IF*
Ethica Clinica 2020; 97(1) : 7-13		

Abstract

Mots-clefs

Pregnancy Outcomes in Inflammatory Bowel Disease Patients Treated With Vedolizumab, anti-TNF or Conventional Therapy: Results of the European CONCEIVE Study

Moens A, van der Woude CJ, Julsgaard M, Humblet E, Sheridan J, Baumgart DC, De Saint-Joseph CG, Nancey S, **Rahier JF,** Bossuyt P, Cremer A, Dewit S, Eriksson C, Hoentjen F, Krause T, Louis E, Macken E, Milenkovic Z, Nijs J, Posen A, Van Hootegem A, Van Moerkercke W, Vermeire S, Bar-Gil Shitrit A, Ferrante M.

Références	*Doi*	*IF*
Aliment Pharmacol Ther. 2020 Jan;51(1):129-138	*10.1111/apt.15539*	*7,51*

Abstract

BACKGROUND: Women with inflammatory bowel diseases (IBD) often receive biologicals during pregnancy to maintain disease remission. Data on outcome of vedolizumab-exposed pregnancies (VDZE) are sparse.
Aims: To assess pregnancy and child outcomes of VDZE pregnancies and to compare these results to anti-TNF exposed (TNFE) or both immunomodulatory and biologic unexposed (CON IBD) pregnancies.
METHODS: A retrospective multicentre case-control observational study was performed.
RESULTS: VDZE group included 79 pregnancies in 73 IBD women. The TNFE and CON IBD group included 186 pregnancies (162 live births) in 164 IBD women and 184 pregnancies (163 live births) in 155 IBD women, respectively. At conception, cases more often had active disease ([VDZE: 36% vs TNFE: 17%, P = .002] and [VDZE: 36% vs CON IBD: 24%, P = .063]). No significant difference in miscarriage rates were found between groups (VDZE and TNFE: 16% vs 13%, P = .567; VDZE and CON IBD: 16% vs 10%, P = .216). In live-born infants, median gestational age and birthweight were similar between groups. Median Apgar score at birth was numerically equal. Prematurity was similar in the VDZE group compared to the control groups, even when correcting for disease activity during pregnancy. The frequency of congenital anomalies was comparable between groups as were the percentages of breastfed babies. During the first year of life, no malignancies were reported and infants' infection risk did not significantly differ between groups.
CONCLUSION: No new safety signal was detected in VDZE pregnancies although larger, prospective studies are required for confirmation.

Mots-clefs

Management and 1-Year Outcomes of Patients With Newly Diagnosed Atrial Fibrillation and Chronic Kidney Disease: Results From the Prospective GARFIELD - AF Registry

Goto S, Angchaisuksiri P, Bassand JP, Camm AJ, Dominguez H, Illingworth L, Gibbs H, Goldhaber SZ, Goto S, Jing ZC, Haas S, Kayani G, Koretsune Y, Lim TW, Oh S, Sawhney JPS, Turpie AGG, van Eickels M, Verheugt FWA, Kakkar AK; GARFIELD-AF Investigators, **Xhaet O, Dormal F.**

Références	*Doi*	*IF*
J Am Heart Assoc. 2019 Feb 5;8(3):e010510	*10.1161/JAHA.118.010510*	*4,660*

Abstract

Background Using data from the GARFIELD - AF (Global Anticoagulant Registry in the FIELD -Atrial Fibrillation), we evaluated the impact of chronic kidney disease (CKD) stage on clinical outcomes in patients with newly diagnosed atrial fibrillation (AF). Methods and Results GARFIELD - AF is a prospective registry of patients from 35 countries, including patients from Asia (China, India, Japan, Singapore, South Korea, and Thailand). Consecutive patients enrolled (2013-2016) were classified with no, mild, or moderate-to-severe CKD , based on the National Kidney Foundation's Kidney Disease Outcomes Quality Initiative guidelines. Data on CKD status and outcomes were available for 33 024 of 34 854 patients (including 9491 patients from Asia); 10.9% (n=3613) had moderate-to-severe CKD , 16.9% (n=5595) mild CKD , and 72.1% (n=23 816) no CKD . The use of oral anticoagulants was influenced by stroke risk (ie, post hoc assessment of CHA 2 DS 2- VAS c score), but not by CKD stage. The quality of anticoagulant control with vitamin K antagonists did not differ with CKD stage. After adjusting for baseline characteristics and antithrombotic use, both mild and moderate-to-severe CKD were independent risk factors for all-cause mortality. Moderate-to-severe CKD was independently associated with a higher risk of stroke/systemic embolism, major bleeding, new-onset acute coronary syndrome, and new or worsening heart failure. The impact of moderate-to-severe CKD on mortality was significantly greater in patients from Asia than the rest of the world (P=0.001). Conclusions In GARFIELD - AF , moderate-to-severe CKD was independently associated with stroke/systemic embolism, major bleeding, and mortality. The effect of moderate-to-severe CKD on mortality was even greater in patients from Asia than the rest of the world. Clinical Trial Registration URL : http://www.clinicaltrials.gov . Unique identifier: NCT 01090362.

Mots-clefs

GARFIELD-AF registry; atrial fibrillation; chronic kidney disease; outcomes research; registry.

Impact of body mass index on the outcome of catheter ablation of atrial fibrillation

Glover BM, Hong KL, Dagres N, Arbelo E, Laroche C, Riahi S, Bertini M, Mikhaylov EN, Galvin J, Kiliszek M, Pokushalov E, Kautzner J, Calvo N, Blomström-Lundqvist C, Brugada J; ESC-EHRA Atrial Fibrillation Ablation Long-Term Registry investigators, **Xhaet O.**

Références	*Doi*	*IF*
Heart 2019 Feb;105(3): 244-250	*10.1136/heartjnl-2018-313490*	*5,213*

Abstract

Objectives: The association between obesity and atrial fibrillation (AF) is well-established. We aimed to evaluate the impact of index body mass index (BMI) on AF recurrence at 12 months following catheter ablation using propensity-weighted analysis. In addition, periprocedural complications and fluoroscopy details were examined to assess overall safety in relationship to increasing BMI ranges.

Methods: Baseline, periprocedural and follow-up data were collected on consecutive patients scheduled for AF ablation. There were no specific exclusion criteria. Patients were categorised according to baseline BMI in order to assess the outcomes for each category.

Results: Among 3333 patients, 728 (21.8%) were classified as normal (BMI <25.0 kg/m2), 1537 (46.1%) as overweight (BMI 25.5-29.0 kg/m2) and 1068 (32.0%) as obese (BMI ≥30.0 kg/m2). Procedural duration and radiation dose were higher for overweight and obese patients compared with those with a normal BMI (p=0.002 and p<0.001, respectively). An index BMI ≥30 kg/m2 led to a 1.2-fold increased likelihood of experiencing recurrent AF at 12-months follow-up as compared with overweight patients (HR 1.223; 95% CI 1.047 to 1.429; p=0.011), while no significant correlation was found between overweight and normal BMI groups (HR 0.954; 95% CI 0.798 to 1.140; p=0.605) and obese versus normal BMI (HR 1.16; 95% CI 0.965 to 1.412; p=0.112).

Conclusions: Patients with a baseline BMI ≥30 kg/m2 have a higher recurrence rate of AF following catheter ablation and therefore lifestyle modification to target obesity preprocedure should be considered in these patients.

Mots-clefs

atrial fibrillation; catheter ablation; obesity

Antithrombotic Therapy after Acute Coronary Syndrome or PCI in Atrial Fibrillation

Lopes RD, Gretchen Heizer D, Aronson R, Vora AN, Massaro T, Mehran R, Goodman SG, Windecker S, Darius H, Li J, Averkov O, Bahit C, Berwanger O, Budaj A, Hijazi Z, Parkhomenko A, Sinnaeve P, Storey RF, Thiele H, Vinereanu D, Granger CB, Alexander J, for the AUGUSTUS Investigators, **Guedes A.**

Références	*Doi*	*IF*
N Engl J Med 2019; 380:1509-1524	*10.1056/NEJMoa1817083*	*74,699*

Abstract

BACKGROUND: Appropriate antithrombotic regimens for patients with atrial fibrillation who have an acute coronary syndrome or have undergone percutaneous coronary intervention (PCI) are unclear.

METHODS: In an international trial with a two-by-two factorial design, we randomly assigned patients with atrial fibrillation who had an acute coronary syndrome or had undergone PCI and were planning to take a P2Y12 inhibitor to receive apixaban or a vitamin K antagonist and to receive aspirin or matching placebo for 6 months. The primary outcome was major or clinically relevant nonmajor bleeding. Secondary outcomes included death or hospitalization and a composite of ischemic events.

RESULTS: Enrollment included 4614 patients from 33 countries. There were no significant interactions between the two randomization factors on the primary or secondary outcomes. Major or clinically relevant nonmajor bleeding was noted in 10.5% of the patients receiving apixaban, as compared with 14.7% of those receiving a vitamin K antagonist (hazard ratio, 0.69; 95% confidence interval [CI], 0.58 to 0.81; P<0.001 for both noninferiority and superiority), and in 16.1% of the patients receiving aspirin, as compared with 9.0% of those receiving placebo (hazard ratio, 1.89; 95% CI, 1.59 to 2.24; P<0.001). Patients in the apixaban group had a lower incidence of death or hospitalization than those in the vitamin K antagonist group (23.5% vs. 27.4%; hazard ratio, 0.83; 95% CI, 0.74 to 0.93; P = 0.002) and a similar incidence of ischemic events. Patients in the aspirin group had an incidence of death or hospitalization and of ischemic events that was similar to that in the placebo group.

CONCLUSIONS: In patients with atrial fibrillation and a recent acute coronary syndrome or PCI treated with a P2Y12 inhibitor, an antithrombotic regimen that included apixaban, without aspirin, resulted in less bleeding and fewer hospitalizations without significant differences in the incidence of ischemic events than regimens that included a vitamin K antagonist, aspirin, or both. (Funded by Bristol-Myers Squibb and Pfizer; AUGUSTUS ClinicalTrials.gov number, NCT02415400.)

Mots-clefs

Complete Revascularization with Multivessel PCI for Myocardial Infarction

Mehta SR, Wood DA, Storey RF, Mehran R, Bainey KR, Nguyen H, Meeks B, Di Pasquale G, López-Sendón J, Faxon DP, Mauri L, Rao SV, et al. for the COMPLETE Trial Steering Committee and Investigators, **Guedes A.**

Références	*Doi*	*IF*
N Engl J Med 2019; 381:1411-1421	*10.1056/NEJMoa1907775*	*74,699*

Abstract

BACKGROUND: In patients with ST-segment elevation myocardial infarction (STEMI), percutaneous coronary intervention (PCI) of the culprit lesion reduces the risk of cardiovascular death or myocardial infarction. Whether PCI of nonculprit lesions further reduces the risk of such events is unclear.

METHODS: We randomly assigned patients with STEMI and multivessel coronary artery disease who had undergone successful culprit-lesion PCI to a strategy of either complete revascularization with PCI of angiographically significant nonculprit lesions or no further revascularization. Randomization was stratified according to the intended timing of nonculprit-lesion PCI (either during or after the index hospitalization). The first coprimary outcome was the composite of cardiovascular death or myocardial infarction; the second coprimary outcome was the composite of cardiovascular death, myocardial infarction, or ischemia-driven revascularization.

RESULTS: At a median follow-up of 3 years, the first coprimary outcome had occurred in 158 of the 2016 patients (7.8%) in the complete-revascularization group as compared with 213 of the 2025 patients (10.5%) in the culprit-lesion-only PCI group (hazard ratio, 0.74; 95% confidence interval [CI], 0.60 to 0.91; P = 0.004). The second coprimary outcome had occurred in 179 patients (8.9%) in the complete-revascularization group as compared with 339 patients (16.7%) in the culprit-lesion-only PCI group (hazard ratio, 0.51; 95% CI, 0.43 to 0.61; P<0.001). For both coprimary outcomes, the benefit of complete revascularization was consistently observed regardless of the intended timing of nonculprit-lesion PCI (P = 0.62 and P = 0.27 for interaction for the first and second coprimary outcomes, respectively).

CONCLUSIONS: Among patients with STEMI and multivessel coronary artery disease, complete revascularization was superior to culprit-lesion-only PCI in reducing the risk of cardiovascular death or myocardial infarction, as well as the risk of cardiovascular death, myocardial infarction, or ischemia-driven revascularization. (Funded by the Canadian Institutes of Health Research and others; COMPLETE ClinicalTrials.gov number, NCT01740479.)

Mots-clefs

Ticagrelor in Patients with Stable Coronary Disease and Diabetes

Steg PG, Bhatt DL, Simon T, Fox K, Mehta SR, Harrington RA, Held C, Andersson M, Himmelmann A, Ridderstråle W, Leonsson-Zachrisson M, Liu Y, et al.,for the THEMIS Steering Committee and Investigators, **Guedes A.**

Références	*Doi*	*IF*
N Engl J Med 2019; 381:1309-1320	*10.1056/NEJMoa1908077*	*74,699*

Abstract

BACKGROUND: : Patients with stable coronary artery disease and diabetes mellitus who have not had a myocardial infarction or stroke are at high risk for cardiovascular events. Whether adding ticagrelor to aspirin improves outcomes in this population is unclear.
METHODS: In this randomized, double-blind trial, we assigned patients who were 50 years of age or older and who had stable coronary artery disease and type 2 diabetes mellitus to receive either ticagrelor plus aspirin or placebo plus aspirin. Patients with previous myocardial infarction or stroke were excluded. The primary efficacy outcome was a composite of cardiovascular death, myocardial infarction, or stroke. The primary safety outcome was major bleeding as defined by the Thrombolysis in Myocardial Infarction (TIMI) criteria.
RESULTS: A total of 19,220 patients underwent randomization. The median follow-up was 39.9 months. Permanent treatment discontinuation was more frequent with ticagrelor than placebo (34.5% vs. 25.4%). The incidence of ischemic cardiovascular events (the primary efficacy outcome) was lower in the ticagrelor group than in the placebo group (7.7% vs. 8.5%; hazard ratio, 0.90; 95% confidence interval [CI], 0.81 to 0.99; P = 0.04), whereas the incidence of TIMI major bleeding was higher (2.2% vs. 1.0%; hazard ratio, 2.32; 95% CI, 1.82 to 2.94; P<0.001), as was the incidence of intracranial hemorrhage (0.7% vs. 0.5%; hazard ratio, 1.71; 95% CI, 1.18 to 2.48; P = 0.005). There was no significant difference in the incidence of fatal bleeding (0.2% vs. 0.1%; hazard ratio, 1.90; 95% CI, 0.87 to 4.15; P = 0.11). The incidence of an exploratory composite outcome of irreversible harm (death from any cause, myocardial infarction, stroke, fatal bleeding, or intracranial hemorrhage) was similar in the ticagrelor group and the placebo group (10.1% vs. 10.8%; hazard ratio, 0.93; 95% CI, 0.86 to 1.02).
CONCLUSIONS: In patients with stable coronary artery disease and diabetes without a history of myocardial infarction or stroke, those who received ticagrelor plus aspirin had a lower incidence of ischemic cardiovascular events but a higher incidence of major bleeding than those who received placebo plus aspirin. (Funded by AstraZeneca; THEMIS ClinicalTrials.gov number, NCT01991795.).

Mots-clefs

Pets, Not Always Your Best Friends: A Case Report.

Dieu JH, Pinto Pereira J, **Horlait G.**

Références	*Doi*	*IF*
Ann Case Rep: ACRT-212, 01 February 2019	*10.29011/2574-7754/100212*	*0,096*

Abstract

Mots-clefs

Effect of a Recombinant Human Soluble Thrombomodulin on Mortality in Patients With Sepsis-Associated Coagulopathy: The SCARLET Randomized Clinical Trial.

Vincent JL, Francois B, Zabolotskikh I, Daga MK, Lascarrou JB, Kirov MY, Pettilä V, Wittebole X, Meziani F, Mercier E, Lobo SM, Barie PS, Crowther M, Esmon CT, Fareed J, Gando S, Gorelick KJ, Levi M, Mira JP, Opal SM, Parrillo J, Russell JA, Saito H, Tsuruta K, Sakai T, Fineberg D; SCARLET Trial Group, **Dive A.**

Références	*Doi*	*IF*
J Hospit Inf 2019;102(1):54-60	*10.1001/jama.2019.5358.*	*3,271*

Abstract

IMPORTANCE: Previous research suggested that soluble human recombinant thrombomodulin may reduce mortality among patients with sepsis-associated coagulopathy.

OBJECTIVE: To determine the effect of human recombinant thrombomodulin vs placebo on 28-day all-cause mortality among patients with sepsis-associated coagulopathy.

DESIGN, SETTING, AND PARTICIPANTS: The SCARLET trial was a randomized, double-blind, placebo-controlled, multinational, multicenter phase 3 study conducted in intensive care units at 159 sites in 26 countries. All adult patients admitted to one of the participating intensive care units between October 2012 and March 2018 with sepsis-associated coagulopathy and concomitant cardiovascular and/or respiratory failure, defined as an international normalized ratio greater than 1.40 without other known etiology and a platelet count in the range of 30 to 150 × 109/L or a greater than 30% decrease in platelet count within 24 hours, were considered for inclusion. The final date of follow-up was February 28, 2019.

INTERVENTIONS: Patients with sepsis-associated coagulopathy were randomized and treated with an intravenous bolus or a 15-minute infusion of thrombomodulin (0.06 mg/kg/d [maximum, 6 mg/d]; n = 395) or matching placebo (n = 405) once daily for 6 days. Main outcome and measures: The primary end point was 28-day all-cause mortality.

RESULTS: Among 816 randomized patients, 800 (mean age, 60.7 years; 437 [54.6%] men) completed the study and were included in the full analysis set. In these patients, the 28-day all-cause mortality rate was not statistically significantly different between the thrombomodulin group and the placebo group (106 of 395 patients [26.8%] vs 119 of 405 patients [29.4%], respectively; P = .32). The absolute risk difference was 2.55% (95% CI, -3.68% to 8.77%). The incidence of serious major bleeding adverse events (defined as any intracranial hemorrhage; life-threatening bleeding; or bleeding event classified as serious by the investigator, with administration of at least 1440 mL [typically 6 units] of packed red blood cells over 2 consecutive days) was 23 of 396 patients (5.8%) in the thrombomodulin group and 16 of 404 (4.0%) in the placebo group.

CONCLUSIONS AND RELEVANCE: Among patients with sepsis-associated coagulopathy, administration of a human recombinant thrombomodulin, compared with placebo, did not significantly reduce 28-day all-cause mortality.

TRIAL REGISTRATION: ClinicalTrials.gov Identifier: NCT01598831.

Mots-clefs

Demographics, management and outcome of females and males with acute respiratory distress syndrome in the LUNG SAFE prospective cohort study.

McNicholas BA, Madotto F, Pham T, Rezoagli E, Masterson CH, Horie S, Bellani G, Brochard L, Laffey JG; LUNG SAFE Investigators **[Dive A, Bulpa P.]** and the ESICM Trials Group.

Références	*Doi*	*IF*
Eur Respir J. 2019;54(4):1900609	*10.1183/13993003.00609-2019*	*12,339*

Abstract

RATIONALE: We wished to determine the influence of sex on the management and outcomes in acute respiratory distress syndrome (ARDS) patients in the Large Observational Study to Understand the Global Impact of Severe Acute Respiratory Failure (LUNG SAFE).

METHODS: We assessed the effect of sex on mortality, intensive care unit and hospital length of stay, and duration of invasive mechanical ventilation (IMV) in patients with ARDS who underwent IMV, adjusting for plausible clinical and geographic confounders.

FINDINGS: Of 2377 patients with ARDS, 905 (38%) were female and 1472 (62%) were male. There were no sex differences in clinician recognition of ARDS or critical illness severity profile. Females received higher tidal volumes (8.2±2.1 versus 7.2±1.6 mL•kg-1; p<0.0001) and higher plateau and driving pressures compared with males. Lower tidal volume ventilation was received by 50% of females compared with 74% of males (p<0.0001). In shorter patients (height ≤1.69 m), females were significantly less likely to receive lower tidal volumes. Surviving females had a shorter duration of IMV and reduced length of stay compared with males. Overall hospital mortality was similar in females (40.2%) versus males (40.2%). However, female sex was associated with higher mortality in patients with severe confirmed ARDS (OR for sex (male versus female) 0.35, 95% CI 0.14-0.83).

CONCLUSIONS: Shorter females with ARDS are less likely to receive lower tidal volume ventilation, while females with severe confirmed ARDS have a higher mortality risk. These data highlight the need for better ventilatory management in females to improve their outcomes from ARDS.

Mots-clefs

A worldwide perspective of sepsis epidemiology and survival according to age: Observational data from the ICON audit

Kotfis K, Wittebole X, Jaschinski U, Solé-Violán J, Kashyap R, Leone M, Nanchal R, Fontes LE, Sakr Y, Vincent JL, ICON Investigators, **Dive A.**

Références	*Doi*	*IF*
J Crit Care. 2019 Jun;51:122-132	*10.1016/j.jcrc.2019.02.015*	*2,685*

Abstract

PURPOSE: To investigate age-related differences in outcomes of critically ill patients with sepsis around the world.

METHODS: We performed a secondary analysis of data from the prospective ICON audit, in which all adult (›16 years) patients admitted to participating ICUs between May 8 and 18, 2012, were included, except admissions for routine postoperative observation. For this sub-analysis, the 10,012 patients with completed age data were included. They were divided into five age groups - ≤50, 51-60, 61-70, 71-80, ›80 years. Sepsis was defined as infection plus at least one organ failure.

RESULTS: A total of 2963 patients had sepsis, with similar proportions across the age groups (≤50 = 25.2%; 51-60 = 30.3%; 61-70 = 32.8%; 71-80 = 30.7%; ›80 = 30.9%). Hospital mortality increased with age and in patients ›80 years was almost twice that of patients ≤50 years (49.3% vs 25.2%, p ‹ .05). The maximum rate of increase in mortality was about 0.75% per year, occurring between the ages of 71 and 77 years. In multilevel analysis, age › 70 years was independently associated with increased risk of dying.

CONCLUSIONS: The odds for death in ICU patients with sepsis increased with age with the maximal rate of increase occurring between the ages of 71 and 77 years.

Mots-clefs

ICU; Mortality; Outcome

Hyperoxemia and excess oxygen use in early acute respiratory distress syndrome: insights from the LUNG SAFE study

Madotto F, Rezoagli E, Pham T, Schmidt M, McNicholas B, Protti A, Panwar R, Bellani G, Fan E, van Haren F, Brochard L, Laffey JG, LUNG SAFE Investigators and the ESICM Trials Group, Bulpa P, **Dive A.**

Références	*Doi*	*IF*
Crit Care 2020;24(1):125	*10.1186/s13054-020-2826-6*	*6,700*

Abstract

BACKGROUND: Concerns exist regarding the prevalence and impact of unnecessary oxygen use in patients with acute respiratory distress syndrome (ARDS). We examined this issue in patients with ARDS enrolled in the Large observational study to UNderstand the Global impact of Severe Acute respiratory FailurE (LUNG SAFE) study.

METHODS: In this secondary analysis of the LUNG SAFE study, we wished to determine the prevalence and the outcomes associated with hyperoxemia on day 1, sustained hyperoxemia, and excessive oxygen use in patients with early ARDS. Patients who fulfilled criteria of ARDS on day 1 and day 2 of acute hypoxemic respiratory failure were categorized based on the presence of hyperoxemia (PaO_2 > 100 mmHg) on day 1, sustained (i.e., present on day 1 and day 2) hyperoxemia, or excessive oxygen use (FIO_2 ≥ 0.60 during hyperoxemia).

RESULTS: Of 2005 patients that met the inclusion criteria, 131 (6.5%) were hypoxemic (PaO_2 < 55 mmHg), 607 (30%) had hyperoxemia on day 1, and 250 (12%) had sustained hyperoxemia. Excess FIO_2 use occurred in 400 (66%) out of 607 patients with hyperoxemia. Excess FIO_2 use decreased from day 1 to day 2 of ARDS, with most hyperoxemic patients on day 2 receiving relatively low FIO_2. Multivariate analyses found no independent relationship between day 1 hyperoxemia, sustained hyperoxemia, or excess FIO_2 use and adverse clinical outcomes. Mortality was 42% in patients with excess FIO_2 use, compared to 39% in a propensity-matched sample of normoxemic (PaO_2 55-100 mmHg) patients (P = 0.47).

CONCLUSIONS: Hyperoxemia and excess oxygen use are both prevalent in early ARDS but are most often non-sustained. No relationship was found between hyperoxemia or excessive oxygen use and patient outcome in this cohort.

TRIAL REGISTRATION: LUNG-SAFE is registered with ClinicalTrials.gov, NCT02010073.

Mots-clefs

Acute respiratory distress syndrome; Hyperoxemia; Hyperoxia; Hypoxemia; Hypoxia; Invasive mechanical ventilation; Mortality; Oxygen therapy

The clinical relevance of oliguria in the critically ill patient: analysis of a large observational database

Vincent JL, Ferguson A, Pickkers P, Jakob SM, Jaschinski U, Almekhlafi GA, Leone M, Mokhtari M, Fontes LE, Bauer PR, Sakr Y, ICON Investigators, **Dive A.**

Références	*Doi*	*IF*
Crit Care 2020;24(1):171	*10.1186/s13054-020-02858-x*	*6,700*

Abstract

BACKGROUND: Urine output is widely used as one of the criteria for the diagnosis and staging of acute renal failure, but few studies have specifically assessed the role of oliguria as a marker of acute renal failure or outcomes in general intensive care unit (ICU) patients. Using a large multinational database, we therefore evaluated the occurrence of oliguria (defined as a urine output ‹ 0.5 ml/kg/h) in acutely ill patients and its association with the need for renal replacement therapy (RRT) and outcome.

METHODS: International observational study. All adult (› 16 years) patients in the ICON audit who had a urine output measurement on the day of admission were included. To investigate the association between oliguria and mortality, we used a multilevel analysis.

RESULTS: Of the 8292 patients included, 2050 (24.7%) were oliguric during the first 24 h of admission. Patients with oliguria on admission who had at least one additional 24-h urine output recorded during their ICU stay (n = 1349) were divided into three groups: transient-oliguria resolved within 48 h after the admission day (n = 390 [28.9%]), prolonged-oliguria resolved › 48 h after the admission day (n = 141 [10.5%]), and permanent-oliguria persisting for the whole ICU stay or again present at the end of the ICU stay (n = 818 [60.6%]). ICU and hospital mortality rates were higher in patients with oliguria than in those without, except for patients with transient oliguria who had significantly lower mortality rates than non-oliguric patients. In multilevel analysis, the need for RRT was associated with a significantly higher risk of death (OR = 1.51 [95% CI 1.19-1.91], p = 0.001), but the presence of oliguria on admission was not (OR = 1.14 [95% CI 0.97-1.34], p = 0.103).

CONCLUSIONS: Oliguria is common in ICU patients and may have a relatively benign nature if only transient. The duration of oliguria and need for RRT are associated with worse outcome.

Mots-clefs

Mortality; Renal replacement therapy; Urine output

Healthcare professionals' perspective can guide post-marketing surveillance of artemisinin-based combination therapy in Uganda

Ndagije HB, Kiguba R, Manirakiza L, Kirabira E, Sserwanga A, Nabirye L, Mukonzo J, Olsson S, Spinewine A, D'Hoore W, Speybroeck N.

Références	*Doi*	*IF*
Malar J. 2020 Feb 10;19(1):63	*10.1186/s12936-020-3148-5*	*2,798*

Abstract

BACKGROUND: Efficient testing to identify poor quality artemisinin-based combination therapy (ACT) is important to optimize efforts to control and eliminate malaria. Healthcare professionals interact with both ACT and malaria patients they treat and hence could observe, first-hand, suspect poor quality artemisinin-based combinations linked to poor malaria treatment outcomes and the factors associated with inappropriate use or treatment failure.

METHODS: A cross-sectional study of 685 HCP perspectives about the efficacy of ACT between June and July 2018 at selected health facilities in Uganda. Medicine samples were obtained from the seven regions of Uganda and tested for quality using the Germany Pharma Health Fund™ minilabs.

RESULTS: The average age of the 685 respondents was 30 (SD = 7.4) years. There was an almost equal distribution between male and female respondents (51:49), respectively. Seventy percent (n = 480) were diploma holders and the nurses contributed to half (49%, n = 334) of the study population. Sixty-one percent of the HCPs reported having ever encountered ACT failures while treating uncomplicated malaria. Nineteen percent of HCPs thought that dihydroartemisinin/piperaquine gave the most satisfactory patient treatment outcomes, while 80% HCPs thought that artemether/lumefantrine gave the least satisfactory patient treatment outcomes, possibly due to dosing schedule and pill burden. Healthcare professionals from the Central region (OR = 3.0, CI 0.3-1.0; P = 0.0001), Eastern region (OR = 5.4, CI 2.9-9.8; P = 0.0001) and Northern region (OR = 5.3, CI 2.9-9.9; P = 0.0001) had a higher chance of encountering ACT failure in 4 weeks prior to the survey as compared to those from the western region. Healthcare professionals from private health facilities also had higher chances of encountering ACT failures in past 4 weeks as compared to those from public health facilities (OR = 2.7, CI 1.7-3.9; P = 0.0001). All 192 samples passed the quality screening tests. The random sample of 10% of all samples randomly obtained by the laboratory staff also passed the chemical content analysis and dissolution tests.

CONCLUSION: ACT medicines are widely available over-the-counter to the public and it is very difficult to report and monitor a decrease in efficacy or treatment failure. The perspectives of HCPs on treatment failure or lack of efficacy may potentially guide optimization efforts of sampling methodologies for the quality survey of ACT medicines.

Mots-clefs

Artemisinin-based combination therapy; Healthcare professional perspectives; Perceived treatment failure.

RECUEIL DES PUBLICATIONS SCIENTIFIQUES DU CHU UCL NAMUR

N°5 - DEUXIÈME QUADRIMESTRE 2019

MAI

1

The daily practice reality of PD-L1 (CD274) evaluation in non-small cell lung cancer: A retrospective study

Verocq C, Decaestecker C, Rocq L, De Clercq S, Verrellen A, Mekinda Z, **Ocak S**, Compère C, **Stanciu-Pop C**, Salmon I, Remmelink M, D'Haene N.

Références	*Doi*	*IF*
Oncol Lett. 2020;19(5):3400-3410	*10.3892/ol.2020.11458*	*1,871*

Abstract

Treatment with pembrolizumab, an anti-programmed cell death-1 (PDCD-1) monoclonal antibody for the treatment of non-small cell lung cancers (NSCLCs) requires prior immunohistochemical (IHC) analysis of the expression of the programmed death-ligand 1 (PD-L1) (also known as CD274 molecule) which is a heterogeneous and complex marker. The present study aimed to investigate how pathological and technical factors (such as tumor location and sampling type, respectively) may affect the PD-L1 evaluation in patients with NSCLC in the daily practice of pathology laboratories. The current study was retrospective, and included 454 patients with NSCLC, for whom PD-L1 expression analysis by IHC was prospectively performed between November 2016 and January 2018. The association between PD-L1 expression and the clinicopathological characteristics of patients was statistically investigated using either the $\chi 2$ and Fisher exact tests or the Mann-Whitney and Kruskal-Wallis tests, depending on whether PD-L1 expression was assessed in three large categories (<1, 1-49, ≥50%) or in more precise percentages. Furthermore, the same statistical methodology was used to analyze the heterogeneity of PD-L1 expression according to its sampling type (cytology, biopsy or surgical specimen) and its location (primary tumor, lymph node or distant metastasis). Intra- and inter-observer discrepancies were also studied using double-blind evaluation and concordance analyses based on the weighted κ coefficient. The results demonstrated a significant association between PD-L1 expression and sample location (P=0.005), histological type (P=0.026), total number of mutations (P=0.004) and KRAS proto-oncogene, GTPase mutations (P=0.024). In addition, sampling type did not influence PD-L1 expression. The inter- and intra-observer discrepancies were 15% and between 16 and 17.5%, respectively. The present study confirmed that evaluation of PD-L1 expression by IHC can be performed on all types of samples. In addition, the results from the current study highlighted the heterogeneity of PD-L1 expression among the different types of sample location. In complex cases, a second evaluation of PD-L1 expression by IHC would be performed due to intra- and inter-observer discrepancies.

Mots-clefs

CD274 molecule; IHC; NSCLC; PD-L1; concordance; daily practice.

Preoperative treatment of benign insulinoma: diazoxide or somatostatin analogues ?

Gilliaux Q, Bertrand C, Hanon F, Donckier J.

Références	*Doi*	*IF*
Acta Chir Belg. 2020 May 18;1-4	*10.1080/00015458.2020.1765676*	*0,521*

Abstract

Surgery is the ideal treatment of insulinoma. However, systemic therapy may be required to prevent severe preoperative hypoglycaemia, when surgery is contraindicated, delayed or refused and in case of unresectable metastatic disease. Diazoxide is commonly used but is not always effective and can cause serious side effects. Somatostatin analogues (octreotide and lanreotide) may be an alternative option. We report the case of a 27-year-old patient with insulinoma in whom diazoxide was compared with lanreotide before operation. A diagnosis of insulinoma was made on the basis of a fasting test and a 2 cm tumour confirmed in the body of the pancreas, with a high uptake of 111-In-pentreotide. Diazoxide was initiated and increased to a maximal tolerated dose of 450 mg/day. Because of dyspnoea and persisting hypoglycaemia, diazoxide was shifted to lanreotide 120 mg. All symptoms resolved without hypoglycaemia. According to the EORTC quality score of life, the score without treatment, under diazoxide, under lanreotide and after surgery were respectively 84.7, 73.3, 90.9 and 99.1. Thus, providing a positive Octreoscan, somatostatin analogues may be a safe, effective and well-tolerated option in patients with insulinoma refractory and/or intolerant to diazoxide or with a high risk of fluid retention.

Mots-clefs

Insulinoma; diazoxide; hypoglycaemia; preoperative treatment; somatostatin analogues.

Transoral robotic surgery hypopharyngectomy (TORSH): feasibility and outcomes

Hassid S, Van der Vorst S, Delahaut G, Ambroise **J, Lawson G.**

Références	*Doi*	*IF*
Eur Arch Otorhinolaryngol. 2020 May 4 Online ahead of print.	*10.1007/s00405-020-05984-y*	*1,809*

Abstract

PURPOSE: With the development of minimal invasive procedure, trans-oral robotic surgery (TORS) is expanding in the field of ENT. Most reviews focus on oropharyngeal and laryngeal (supra-glottic) localization. We report here the feasibility and outcomes of TORS hypopharyngectomy (TORSH) for selected patients with hypopharyngeal tumor.
METHODS: Between September 2009 and July 2017, 22 patients, retrospectively included, underwent TORSH with curative intent.
RESULTS: From 22 successful hypopharyngectomy, no conversion to open procedure was needed. Three patients (13%) presented a post-operative bleeding and were managed by surgical revision. No fistula was encountered. The 3-year overall survival and disease-specific survival rates were 54 and 92%, respectively. Patients started oral feeding after an average of 7 days. Naso-gastric feeding tubes were removed after a median period of 16 days. Two patients (9%) needed a transient gastrostomy (< 1 year). Three patients (13%) received a transient tracheostomy (< 2 months). Median hospitalization stay was 13 days.
CONCLUSIONS: TORSH is a safe technique. Patients' outcomes are favorable and the post-operative morbidity is reduced compared to open neck approach. Hospitalization length and safe swallowing time are reduced.

Mots-clefs

Head and neck tumors; Hypopharynx; Oncology; Robotic surgery; Transoral.

Primary Endonasal Endoscopic Powered Dacryocystorhinostomy for Low Obstruction of the Lacrimal Excretory System in Adult Patients: A 5-Years Experience

Renward W, De Dorlodot C, Eloy P.

Références	*Doi*	*IF*
HSOA Journal of Otolaryngology, Head & Neck Surgery 2020;5(40):1-6	*10.24966/OHNS-010X/100040*	

Abstract

PURPOSE: The aim of this retrospective study was to describe the outcomes of powered endonasal endoscopic dacryocystorhinostomy(DCR) performed for symptomatic low lachrymal obstruction in adult patients over a 5-year period by the same surgeon.
METHODS: Retrospective study. PATIENTS: Patients suffering from a low obstruction of the lachrymal system documented by paraclinical investigations treated in the ENT department of CHU UCL Namur between September 2011 and September 2016.
RESULTS: In total, 128 procedures were performed for 111 patients. The mean age at the time of surgery was 62.3 years (range: 18.1-93.0 years). There were 93 women and 18 men, and the mean follow-up duration was 40.5 months (range: 12.1-54.47 months. Aetiologies for the lacrimal obstruction included primary acquired nasolacrimal duct obstruction (PANDO; n=123), LeFort fractures (n=3), and radiotherapy/chemotherapy (n=2). Epiphora only (n=98), chronic purulent discharge (n=30), and acute dacryocystitis (n=4)were major symptoms. The stoma remained patent in115 of the 128 (89.8%) procedures, while111 (86.7%) procedures resulted in complete symptom resolution. Persistence of tearing without infection was observed after 17 (13.3%) procedures, with revision surgery performed in 13(10.1%) cases.
CONCLUSION: Endoscopic endonasal powered DCR is an effective surgery for primary saccal and post-saccal lachrymal obstruction in adults. The success rate is high and very competitive to that after an external approach. Powered instrumentation is a nice tool to make the resection of the bony part of the frontal process of the maxillary easier and quicker particularly in case of very thick bone. The postoperative morbidity is very low; The rehabilitation is fast. Septoplasty or sinus surgeries can be performed in the same operating setting when required with no deleterious impact on the success rate of DCR.

Mots-clefs

Adult patients ; Case series ; Lower lachrymal pathway obstruction ; Powered dacryocystorhinostomy

An update on the management of metastatic clear-cell renal cell carcinoma : the BSMO expert panel recommendations

Delafontaine B, De Backer C, Beuselinck B, Debruyne P, **D'Hondt L.**

Références	*Doi*	*IF*
Belgian Journal of Medical Oncology 2020;14(2):56-70		

Abstract

The management of recurrent or metastatic renal cell carcinoma is evolving fast, with new therapeutic options becoming available that may improve the outcome of patients. In this paper, recent evolutions are discussed and recommendations are made regarding the management of renal cell carcinoma in a Belgian context.

Mots-clefs

Uso e abuso di apparecchi-video nei giovani: quali rischi per la salute.

Zdanowicz N, Reynaert C, Jacques D, Lepièce B, Dubois T.

Références	*Doi*	*IF*
Telos 2020;2:181-190		*0,17*

Abstract

BACKGROUND: With the alpha generation, parents' anxiety about young people's use of the media has increased. Consumption is assumed to be excessive, resulting in sedentary lifestyles, psychiatric disorders, overconsumption of sexual content and suicidal behavior. What is it really like?

METHOD: Besides the data from the HBSC 2014 survey (Health Behaviors in School aged Children) for Belgium, we carried out a bibliographic search (Medline, Scopus, Psycarticles, Psycinfo, Pubmed) with the keywords adolescent - internet and sedentary or suicide or family or sex * or porn * between 2014 and 2019. We selected 27 articles from original research and / or quantitative or qualitative meta-analysis.

RESULTS: Total consumption of different media (television, video games, internet) was stable until 2010 and increased significantly in 2014. A parallel increase in sedentary lifestyles has not been reported. The figures beyond which we can speak of overconsumption and the definition of what is "problematic use" remain controversial. 5% of young people have an unusual internet consumption and 97.5% of them meet the criteria of a mental disorder. The risk of overconsumption depends on 4 factors: family, personality, peer influence and media offer. In addition to these general risk factors, there are specific factors for the abuse of sexual content and for suicidal behaviors. For suicidal behaviors, the specific risk factors are in fact the same as those for young suicidal people outside the influence of the media.

Mots-clefs

Views of patients with inflammatory bowel disease on the COVID-19 pandemic: a global survey

D'Amico F, **Rahier JF**, Leone S, Peyrin-Biroulet L, Danese S.

Références	*Doi*	*IF*
Lancet Gastroenterol Hepatol. 2020 Jul;5(7):631-632	*10.1016/S2468-1253(20)30151-5.*	*14,789*

Abstract

Mots-clefs

Post-Traumatic Ostial Avulsion of a Polar Inferior Renal Artery Treated by Endovascular Covered Aortic Stenting

Carrozza F, Deprez F.

Références	*Doi*	*IF*
J Belg Soc Radiol. 2020 May 7;104(1):24	*10.5334/jbsr.2081*	*0,150*

Abstract

Renovascular traumas are rare in abdominal blunt traumas, especially those involving complete avulsion of a renal artery. Their management poses a dilemma between blood flow preservation and the risks of bleeding. We present the case of a rare variant of renovascular injury, with a post traumatic ostial avulsion of a polar inferior renal artery, successfully treated percutaneously by endovascular aortic covered stenting under c-arm cone-beam computed tomography guiding.

Mots-clefs

accessory renal artery; blunt aortic trauma; c-arm CBCT; endovascular treatment.

Adductor Insertion Avulsion Syndrome with Proximal Femoral Shaft Stress Fracture: Not Only Found in Young Athletes

Pauchet A, Falticeanu A, Lebecque O.

Références	*Doi*	*IF*
J Belg Soc Radiol. 2020 May 6;104(1):21	*10.5334/jbsr.2014*	*0,150*

Abstract

The adductor insertion avulsion syndrome, also called «thigh splints,» is usually considered a sports injury, causing thigh and groin pain. It is related to chronic traction stress of the adductor muscles at their insertion site along the posterior margin of the proximal and mid-femoral diaphysis, and it can get complicated by stress fracture. We report the case of a 64-year-old woman-significantly older than previously reported cases-with a history of complete functional loss of the right hip following intensive physiotherapy and a final diagnosis of adductor insertion avulsion syndrome.

Mots-clefs

adductor insertion avulsion syndrome; stress fracture; thigh splints.

Systematic scrotum ultrasound in male infertility: what to look for

Falticeanu A, Lebecque O, Dupont M.

Références	*Doi*	*IF*
Med Ultrason. 2020 May 7. Online ahead of print.	*10.11152/mu-2491*	*1,553*

Abstract

Ultrasound is a useful, cost-effective and minimally invasive tool that can be used in the workup of male infertility. Patient history, semen analysis and hormonal results often precede ultrasound examination as a part of the workup of male factor infertility.In our article, we advocate the added value of a systematic approach of the scrotal ultrasound. We propose a checklist for the complete analysis of testicular and paratesticular structures, useful in everyday practice for both clinicians and radiologists, highlighting what can be expected of and what should be found in the radiologist's report.

Mots-clefs

Ultrasound in pediatric orbital cellulitis

Falticeanu A, Tritschler P, Dumitriu D.

Références	*Doi*	*IF*
Med Ultrason. 2020 May 11;22(2):253-254	*10.11152/mu-2438*	*1,553*

Abstract

Orbital cellulitis is an infrequent but serious complication of sinus infections in children, as was the case of a 7-year-old who presented to the emergency room with ultrasound signs of preseptal cellulitis. Despite a well conducted antibiotic treatment a control ultrasound demonstrated associated signs of retro-septal extension. This case brings to light the essential role of ultrasound in suspected cellulitis, as a mean to differentiate between preseptal cellulitis and retroseptal (orbital) cellulitis. In the paediatric population ultrasound should be the first intention exam to diagnose the extension of the illness, and help guide the management and follow-up of the patients.ation for both health professionals and the lay public will be a key element in the future.

Mots-clefs

Genotoxicity of aldehyde mixtures: profile of exocyclic DNA-adducts as a biomarker of exposure to tobacco smoke

Alamil H, **Galanti L**, Heutte N, Van Der Schueren M, Dagher Z, Lechevrel M.

Références	*Doi*	*IF*
Toxicol Lett. 2020 Oct 1;331:57-64	*10.1016/j.toxlet.2020.05.010*	*3,569*

Abstract

Electrophilic compounds present in humans, originating from endogenous processes or pollutant exposures, pose a risk to health though their reaction with nucleophilic sites in protein and DNA. Among this chemical class, aldehydes are mainly present in indoor air and they can also be produced by endogenous lipid peroxidation arising from oxidative stress. Known to be very reactive, aldehydes have the ability to form exocyclic adducts to DNA that, for the most if not repaired correctly, are mutagenic and by consequence potential agents involved in carcinogenesis. The aim of this work was to establish profiles of exocyclic DNA adducts induced by aldehyde mixtures, which could ultimately be considered as a genotoxic marker of endogenous and environmental aldehyde exposure. Adducts were quantified by an accurate, sensitive and validated ultra high performance liquid chromatography-electrospray ionization analytical method coupled to mass spectrometry in the tandem mode (UHPLC-ESI-MS/MS). We simultaneously measured nine exocyclic DNA adducts generated during the exposure in vitro of calf thymus DNA to different concentrations of each aldehyde along, as well as, to an equimolar mixture of these aldehydes. This approach has enabled us to establish dose-response relationships that allowed displaying the specific reactivity of aldehydes towards corresponding adducts formation. Profiles of these adducts determined in DNA of current smokers and non-smokers blood samples supported these findings. These first results are encouraging to explore genotoxicity induced by aldehyde mixtures and can furthermore be used as future reference for adductomic approaches.

Mots-clefs

Adducts; Aldehydes; Biomarkers; Oxidative stress; Tobacco smoke; UHPLC-ESI-MS/MS

COVID-19 pandemic. What should PRM specialists do? A clinician's perspective

Carda S, Invernizzi M, Bavikatte G, Bensmaïl D, Bianchi F, **Deltombe T,** Draulans N, Esquenazi A, Francisco G, Gross R, Jacinto L, Moraleda Pérez S, O'dell M, Reebye R, Verduzco-Gutierrez M, Wissel J, Molteni F.

Références	*Doi*	*IF*
Eur J Phys Rehabil Med. 2020 May 19 Online ahead of print.	*10.23736/S1973-9087.20.06317-0*	*2,101*

Abstract

BACKGROUND: COVID-19 pandemic is rapidly spreading all over the world, creating the risk for an healthcare collapse. While acute care and intensive care units are the main pillars of the early response to the disease, rehabilitative medicine should play an important part in allowing COVID-19 survivors to reduce disability and optimize the function of acute hospital setting.

AIM: To share the experience and the international perspective of different rehabilitation centers, treating COVID-19 survivors.

DESIGN: Not applicable.

POPULATION: COVID-19 survivors.

METHODS: A group of Physical Medicine & Rehabilitation specialists from eleven different countries in Europe and North America have shared their clinical experience in dealing with COVID-19 survivors and how they have managed the re-organization of rehabilitation services.

RESULTS: In our experience the most important sequelae of severe and critical forms of COVID-19 are: 1) respiratory; 2) cognitive, central and peipheral nervous system; 3) deconditioning; 4) critical illness related myopathy and neuropathy; 5) dysphagia; 6) joint stiffness and pain; 7) psychiatric.

CONCLUSIONS: We analyze all these consequences and propose some practical treatment options, based on current evidence and clinical experience, as well as several suggestions for management of rehabilitation services and patients with suspected or confirmed infection by SARS-CoV-2.

CLINICAL REHABILITATION IMPACT: COVID-19 survivors have some specific rehabilitation needs. Experience from other centers may help colleagues in organizing their services and providing better care to their patients.

Mots-clefs

Evaluation of the Novodiag CarbaR+, a Novel Integrated Sample to Result Platform for the Multiplex Qualitative Detection of Carbapenem and Colistin Resistance Markers

Girlich D, **Bogaerts P, Bouchahrouf W,** Bernabeu S, Langlois I, Begasse C, Arangia N, Dortet L, **Huang TD, Glupczynski Y,** Naas T.

Références	*Doi*	*IF*
Microb Drug Resist. 2020 May 19 Online ahead of print.	*10.1089/mdr.2020.0132*	*2,397*

Abstract

OBJECTIVES: This study evaluated the performance of the Novodiag® CarbaR+ an automated qualitative nucleic acid-based diagnostic assay detecting the blaVIM, blaNDM, blaIMP, blaOXA-48, blaKPC, blaOXA-23, blaOXA-58, blaOXA-24, and ISAba1 associated blaOXA-51 carbapenemase genes and colistin resistance mcr-1 gene from clinical isolates or directly from rectal swabs.

MATERIALS AND METHODS: CarbaR+ was evaluated on 201 clinical isolates and on 100 rectal swabs (80 selected swabs from patients that were evaluated by culture method and/or Xpert Carba-R assay and 20 spiked samples). PCR-sequencing on colonies was considered as the gold standard.

RESULTS: The CarbaR+ detected all the variants of the targeted resistance genes (39 blaVIM-, 30 blaNDM-, 20 blaIMP-, 19 blaOXA-48-, 15 blaKPC-, 19 blaOXA-23-, 13 blaOXA-58-, 4 blaOXA-24-, 8 ISAba1-blaOXA-51-, and 3 mcr-1-like genes) with sensitivity and specificity of 98.2% and 99.7%, respectively. On the 80 rectal swabs, 71 CarbaR+ results were fully concordant with the results on selective culture media (66 positive samples with 1 to 3 carbapenemases and 5 negative samples). In eight rectal swabs, CarbaR+ identified additional carbapenemase genes. One false negative result with an Escherichia coli producing-OXA-181 was observed and one CarbaR+ result for OXA-48 was in agreement with Xpert Carba-R assay, without growth on culture media. A concordance of 100% was observed on spiked samples.

CONCLUSIONS: Novodiag CarbaR+ is a random-access fully automated system that achieves excellent performances for the detection of carbapenemase and/or colistin resistance determinants either from cultured clinical isolates or directly from rectal swabs in 80 minutes.

Mots-clefs

Acinetobacter; Enterobacterales; Pseudomonas; carbapenemases.

Long-Term Survival, Vascular Occlusive Events and Efficacy Biomarkers of First-Line Treatment of CML: A Meta-Analysis

Haguet H, **Graux C, Mullier F,** Dogné JM, Douxfils J.

Références	*Doi*	*IF*
Cancers (Basel). 2020 May 15;12(5):1242	*10.3390/cancers12051242*	*6,126*

Abstract

Large randomized clinical trials and prior meta-analyses indicate that second-generation BCR-ABL tyrosine kinase inhibitors (TKIs) improve surrogate biomarkers in patients with chronic myeloid leukemia (CML) without providing survival benefits. The objective is to evaluate the long-term efficacy and the occurrence of vascular occlusion with second-generation BCR-ABL TKIs compared with imatinib in patients with CML. Three scientific databases, a clinical registry and abstracts from congress were searched to identify all randomized controlled trials that compared a second-generation BCR-ABL TKI to imatinib in patients with CML. Outcomes extracted were overall survival, major molecular response and complete cytogenetic response, arterial occlusive events and venous thromboembolism. These data were synthesized by odds ratios using a fixed-effect model. This meta-analysis included 4659 participants from 14 trials. Second-generation BCR-ABL TKIs did not improve overall survival compared with imatinib, even at longer follow-up (OR, 1.17 (95% CI, 0.91-1.52)). They improved surrogate biomarkers at 12 and 24 months but increased the risk of arterial occlusion (ORPETO, 2.81 (95% CI, 2.11-3.73)). The long-term benefits of second-generation TKIs are restricted to surrogate outcomes and do not translate into prolonged survival compared to imatinib. Given the long-term use, frontline therapy should be chosen carefully, with special attention to the patients' quality of life and cardiovascular risks.

Mots-clefs

BCR-ABL positive; arterial occlusive disease; leukemia; meta-analysis; myelogenous chronic; overall survival; protein kinase inhibitors.

Evaluation of a new thromboplastin reagent STA-NeoPTimal on a STA R Max analyzer for the measurement of prothrombin time, international normalized ratio and extrinsic factor levels

Mullier F, Paridaens MS, Evrard J, **Baudar J, Guldenpfennig M, Devroye C, Miller L, Chatelain B, Lessire S, Jacqmin H.**

Références	*Doi*	*IF*
Int J Lab Hematol. 2020 May 19 Online ahead of print	*10.1111/ijlh.13236*	*2,141*

Abstract

INTRODUCTION: We aimed at evaluating the performance of a new prothrombin time (PT) reagent (STA-NeoPTimal) with two other PT reagents (STA-Neoplastine R and STA-Neoplastine CI Plus) and the reference PT reagent used in our laboratory (ReadiPlasTin).
Methods: Evaluation consisted in intra- and interassay precision assessment, determination of sensitivity to unfractionated heparin (UFH) or enoxaparin in spiked samples and to direct oral anticoagulants (DOACs) in patients (n = 43). Method comparison of the 4 PT reagents, factor II, V, VII and X assays was tested on normal (n = 20) and abnormal samples: VKA (n = 47), preoperative (n = 23), liver failure (n = 12) and burned patients (n = 37).
RESULTS: Analytical performance met manufacturers' criteria for all reagents. All PT reagents gave correlation coefficients ›0.8 and even ›0.9 in many situations. In some VKA samples, differences ≥ 0.5 INR units were found in samples within and above therapeutic ranges. For burned patients, PT correlations were good but with some minimal bias (‹5.0%) while factor assays gave very consistent results (R › .8 and mainly ›0.9). As expected, poor responsiveness of the PT to DOAC concentrations was observed with all four assays.
CONCLUSION: The STA-NeoPTimal showed comparable performance to ReadiPlasTin, making it suitable for VKA control, detection of factors II, V, VII, X deficiency and assessment of liver disease coagulopathy. However, for patients receiving VKA, some significant differences were observed. We confirmed the inability of the PT assay to detect residual DOAC concentrations. Finally, burned patients results showed that recombinant thromboplastins were less sensitive to factor deficiencies in comparison to extraction thromboplastins.

Mots-clefs

apixaban; burned; preoperative; rivaroxaban; thromboplastin

Corticosteroids, But Not TNF Antagonists, Are Associated With Adverse COVID-19 Outcomes in Patients With Inflammatory Bowel Diseases: Results From an International Registry

Brenner E, Ungaro R, Gearry R, Kaplan G, Kissous-Hunt M, Lewis J, Ng S, **Rahier JF,** Reinisch W, Ruemmele F, Steinwurz F, Underwood F, Zhang X, Colombel JF, Kappelman M.

Références	*Doi*	*IF*
Gastroenterology. 2020 May 18;S0016-5085(20)30655-7	*10.1053/j.gastro.2020.05.032*	*14,877*

Abstract

BACKGROUND AND AIMS: The impact of Coronavirus disease 2019 (COVID-19) on patients with inflammatory bowel disease (IBD) is unknown. We sought to characterize the clinical course of COVID-19 among patients with IBD and evaluate the association among demographics, clinical characteristics, and immunosuppressant treatments on COVID-19 outcomes.

METHODS: Surveillance Epidemiology of Coronavirus Under Research Exclusion for Inflammatory Bowel Disease (SECURE-IBD) is a large, international registry created to monitor outcomes of patients with IBD with confirmed COVID-19. We calculated age-standardized mortality ratios and used multivariable logistic regression to identify factors associated with severe COVID-19, defined as intensive care unit admission, ventilator use, and/or death.

RESULTS: 525 cases from 33 countries were reported (median age 43 years, 53% men). Thirty-seven patients (7%) had severe COVID-19, 161 (31%) were hospitalized, and 16 patients died (3% case fatality rate). Standardized mortality ratios for patients with IBD were 1.8 (95% confidence interval [CI], 0.9-2.6), 1.5 (95% CI, 0.7-2.2), and 1.7 (95% CI, 0.9-2.5) relative to data from China, Italy, and the United States, respectively. Risk factors for severe COVID-19 among patients with IBD included increasing age (adjusted odds ratio [aOR], 1.04; 95% CI, 1.01-1.02), ≥2 comorbidities (aOR, 2.9; 95% CI, 1.1-7.8), systemic corticosteroids (aOR, 6.9; 95% CI, 2.3-20.5), and sulfasalazine or 5-aminosalicylate use (aOR, 3.1; 95% CI, 1.3-7.7). Tumor necrosis factor antagonist treatment was not associated with severe COVID-19 (aOR, 0.9; 95% CI, 0.4-2.2).

CONCLUSIONS: Increasing age, comorbidities, and corticosteroids are associated with severe COVID-19 among patients with IBD, although a causal relationship cannot be definitively established. Notably, tumor necrosis factor antagonists do not appear to be associated with severe COVID-19.

Mots-clefs

COVID-19; Crohn's Disease; Inflammatory Bowel Disease; Ulcerative Colitis.

Risk of acute arterial events associated with treatment of inflammatory bowel diseases: nationwide French cohort study

Kirchgesner J, Nyboe Andersen N, Carrat F, Jess T, Beaugerie L, BERENICE study group
(Rahier JF)

Références	*Doi*	*IF*
Gut. 2020 May;69(5):852-858	*10.1136/gutjnl-2019-318932*	*19,819*

Abstract

OBJECTIVE: Patients with IBD are at increased risk of acute arterial events. Antitumour necrosis factor (TNF) agents and thiopurines may, via their anti-inflammatory properties, lower the risk of acute arterial events. The aim of this study was to assess the impact of thiopurines and anti-TNFs on the risk of acute arterial events in patients with IBD.

DESIGN: Patients aged 18 years or older and affiliated to the French national health insurance with a diagnosis of IBD were followed up from 1 April 2010 until 31 December 2014. The risks of acute arterial events (including ischaemic heart disease, cerebrovascular disease and peripheral artery disease) were compared between thiopurines and anti-TNFs exposed and unexposed patients with marginal structural Cox proportional hazard models adjusting for baseline and time-varying demographics, medications, traditional cardiovascular risk factors, comorbidities and IBD disease activity.

RESULTS: Among 177 827 patients with IBD (96 111 (54%) women, mean age at cohort entry 46.2 years (SD 16.3), 90 205 (50.7%) with Crohn's disease (CD)), 4145 incident acute arterial events occurred (incidence rates: 5.4 per 1000 person-years). Compared with unexposed patients, exposure to anti-TNFs (HR 0.79, 95% CI 0.66 to 0.95), but not to thiopurines (HR 0.93, 95% CI 0.82 to 1.05), was associated with a decreased risk of acute arterial events. The magnitude in risk reduction was highest in men with CD exposed to anti-TNFs (HR 0.54, 95% CI 0.40 to 0.72).

CONCLUSION: Exposure to anti-TNFs is associated with a decreased risk of acute arterial events in patients with IBD, particularly in men with CD

Mots-clefs

anti-TNFs; cardiovascular disease; cerebrovascular disease; inflammatory bowel disease; ischeamic heart disease; peripheral arterial disease; thiopurines.

Cannabis : du festif au pathologique

Guerfali Y, Zdanowicz N.

Références	*Doi*	*IF*
La Rev Med Générale. 2020;373:6-12		*0,810*

Abstract

Le cannabis est la drogue la plus utilisée en Belgique mais également dans le monde et en particulier chez les jeunes. Elle a une image de drogue douce, festive, entrainant peu de dépendance. Mais qu'en est-il en réalité ? Cet article fait la différence entre consommation occasionnelle et chronique, sur les conséquences de la consommation surtout sur les cerveaux en croissance sur les facteurs favorisants la dépendance mais aussi sur la prise en charge.

Mots-clefs

Use of chimerism analysis after allogeneic stem cell transplantation: Belgian guidelines and review of the current literature

Delie A, Verlinden A, Beel K, Deeren D, Mazure D, Baron F, Breems D, De Becker A, **Graux C**, Lewalle P, Maertens J, Poire X, Schoemans H, Selleslag D, Van Obbergh F, Kerre T.

Références	*Doi*	*IF*
Acta Clin Belg. 2020 May 2;1-9 Online ahead of print.	*10.1080/17843286.2020.1754635*	*0,80*

Abstract

BACKGROUND: Allogeneic hematopoietic stem cell transplantation (HSCT) is a curative treatment option in both adult and pediatric patients with malignant and non-malignant hematological diseases. Chimerism analysis, which determines the donor or recipient origin of hematopoietic cells in HSCT recipients, is an essential aspect of post-HSCT follow-up.

OBJECTIVES: To review the current literature and develop Belgian consensus guidelines for the use of chimerism analysis in the standard of care after allogeneic HSCT.

METHODS: Non-systematic review of the literature in consultancy with the members of the BHS transplantation committee.Results: Clinical application with regards to prediction of graft failure or relapse as well as cell source are reviewed. A consensus guideline on the use of chimerism analysis after HSCT is presented.

CONCLUSION: Monitoring of the dynamics or kinetics of a patient's chimerism status by serial analysis at fixed time points, as well as on suspicion of relapse or graft failure, is needed to monitor engraftment levels, as well as disease control and possible relapse.

Mots-clefs

Allogeneic stem cell transplantation; chimerism; graft failure; minimal residual disease.

Cross-border spread of bla NDM-1- and bla OXA-48-positive Klebsiella pneumoniae: a European collaborative analysis of whole genome sequencing and epidemiological data, 2014 to 2019

Ludden C, Lötsch F, Alm E, Kumar N, Johansson K, Albiger B, **Huang TD, Denis O**, Hammerum A, Hasman H, Jalava J, Räisänen K, Dortet L, Jousset A, Gatermann S, Haller S, Cormican M, Brennan W, Del Grosso M, Monaco M, Schouls L, Samuelsen O, Pirš M, Cerar T, Oteo-Iglesias J, Pérez-Vázquez M, Sjöström K, Edquist P, Hopkins K, Struelens M, Palm D, Monnet D, Kohlenberg A.

Références	*Doi*	*IF*
Euro Surveill. 2020 May;25(20):2000627	*10.2807/1560-7917.ES.2020.25.20.2000627*	*6,4*

Abstract

Analysis of sequencing data for 143 bla NDM-1- and bla OXA-48-positive Klebsiella pneumoniae isolates from 13 European national collections and the public domain resulted in the identification of 15 previously undetected multi-country transmission clusters. For 10 clusters, cases had prior travel/hospitalisation history in countries outside of the European Union including Egypt, Iran, Morocco, Russia, Serbia, Tunisia and Turkey. These findings highlight the benefit of European whole genome sequencing-based surveillance and data sharing for control of antimicrobial resistance.

Mots-clefs

Klebsiella pneumonia; OXA-48, NDM-1; carbapenem-resistant Enterobacterales; carbapenemase; cross-border import; surveillance; whole genome sequencing.

Q fever endocarditis

Wery F, Delaere B, Schraverus P, Higny J.

Références	*Doi*	*IF*
Acta Cardiol. 2020 May 26;1-2 Online ahead of print.	*10.1080/00015385.2020.1762028*	*0,951*

Abstract

Mots-clefs

Clustering and Kernel Density Estimation for Assessment of Measurable Residual Disease by Flow Cytometry

Jacqmin H, Chatelain B, Louveaux Q, **Jacqmin P,** Dogné JM, **Graux C, Mullier F.**

Références	*Doi*	*IF*
Diagnostics (Basel). 2020 May 18;10(5):317	*10.3390/diagnostics10050317*	*2,360*

Abstract

Standardization, data mining techniques, and comparison to normality are changing the landscape of multiparameter flow cytometry in clinical hematology. On the basis of these principles, a strategy was developed for measurable residual disease (MRD) assessment. Herein, suspicious cell clusters are first identified at diagnosis using a clustering algorithm. Subsequently, automated multidimensional spaces, named «Clouds», are created around these clusters on the basis of density calculations. This step identifies the immunophenotypic pattern of the suspicious cell clusters. Thereafter, using reference samples, the «Abnormality Ratio» (AR) of each Cloud is calculated, and major malignant Clouds are retained, known as «Leukemic Clouds» (L-Clouds). In follow-up samples, MRD is identified when more cells fall into a patient's L-Cloud compared to reference samples (AR concept). This workflow was applied on simulated data and real-life leukemia flow cytometry data. On simulated data, strong patient-dependent positive correlation ($R2 = 1$) was observed between the AR and spiked-in leukemia cells. On real patient data, AR kinetics was in line with the clinical evolution for five out of six patients. In conclusion, we present a convenient flow cytometry data analysis approach for the follow-up of hematological malignancies. Further evaluation and validation on more patient samples and different flow cytometry panels is required before implementation in clinical practice.

Mots-clefs

acute myeloid leukemia (AML); clustering; flow cytometry; kernel density estimation; multiparametric data analysis; personalized medicine

Nursing Activities Score is increased in COVID-19 patients

Reper P, Bombart MA, Leonard I, Payen B, Darquennes O, Labrique S.

Références	*Doi*	*IF*
Intensive Crit Care Nurs. 2020 May 27;102891	*10.1016/j.iccn.2020.102891*	*1,886*

Abstract

Mots-clefs

Germinal Center- Like Diffuse Large B cell Lymphoma of the Frontal Sinus Misdiagnosed as a Pott's Puffy Tumo

Gersdorff G, De Dorlodot C, Fervaille C, Depaus J, Eloy P.

Références	*Doi*	*IF*
Ann Cas Reports. 2020 ;14 :7	*10.1016/j.iccn.2020.102891*	*0,096*

Abstract

Non-Hodgkin's Lymphoma (NHL) of the frontal sinus is very rare and early diagnosis is usually made with some delay because of the non-specificity of the clinical presentation and overlapping with other diseases. We report herein the story of a 40-year-old man who presented to the outpatient clinic with pain and swelling of the forehead. The first diagnosis was a subacute rhinosinusitis mimicking a Pott's puffy tumor. On the CT scan, there was a partial opacity of the left frontal sinus with osteomyelitis of the anterior and posterior tables of the frontal sinuses. He received broad-spectrum antibiotics and systemic glucocorticosteroids. He responded well to the treatment but the symptoms and signs relapsed at the completion of the treatment. A second CT scan was performed but no significant improvement was found compared with the first CT scan. As there was no pus coming from the middle meatus we decided to take specimen for bacteriological and histopathological examination during a therapeutic window. This was done via a supraciliary incision and frontal trephine. The final diagnosis was a diffuse large B cell lymphoma, germinal center B cell like subtype. He underwent 6 cycles of chemoimmunotherapy with R-CHOP and central nervous system prophyllaxis via intrathecal methotrexate. 2 years after the initiation of the treatment the patient is still free of symptom and disease confirmed by serial PET scans.

Mots-clefs

B Cell Lymphoma; DLBCL; Frontal Sinus; GCB; NHLs; Pott's Puffy Tumor; Swelling of the Forehead

The key role of the mandible in modulating airflow amplitude during sleep

Martinot JB, Le-Dong NN, Cuthbert V, Denison S, Silkoff P, Borel JC, Pépin JL.

Références	*Doi*	*IF*
Respir Physiol Neurobiol. 2020 Aug;279:103447	*10.1016/j.resp.2020.103447*	*1,582*

Abstract

RATIONALE: Mandibular position and motion during sleep rely on the balance between mandibular elevators and depressors. We hypothesized that vertical mandibular position (VMP) modulates airflow amplitude during sleep.

METHODS: VMP, tidal nasal flow pressure (NFP) and concurrent surface electromyographic activity of the masseters (sEMG-m) were recorded and processed by a customized algorithm from 100 polysomnographic fragments including a micro-arousal (25 obstructive sleep apnea patients). The relationship between mandibular position and changes in airflow was analysed.

RESULT: Concurrent VMP and sEMG-m activity changes routinely occurred before a new steady state of airflow documented by NFP. Vertical mandible depression was associated with a median (95% CI) reduction in NFP of 40.9% (14.6%-71.3%, p = 0.007) while vertical mandible elevation and mouth closure were associated with a median (95% CI) relative increase in NFP after arousal of 52.6% (17.9%-56.2%, p = 0.001).

CONCLUSION: Elevation and lowering of the mandible were associated with changes in masseteric EMG activity modulating airflow amplitude during sleep.

Mots-clefs

Dental appliance; Mandibular movements; Mouth opening; Sleep apnea

JUIN

A rare case of urinary retention in an adult due to a primary penile Tumor

Di Gregorio M, Nollevaux MC, Dupont M, Lorge F, D'Hondt L.

Références	*Doi*	*IF*
Hem and Med Oncol 2020;5(2):1-3	*10.15761/hmo.1000202*	*8,710*

Abstract

BACKGROUND: Penile cancer is relatively rare as a primary disease in developed countries (0.81 to 1 per 100,000 persons). Penis epidermoid carcinoma is the most frequent histological presentation (93%). Penile adenocarcinomas are most commonly metastatic disease originating from primary lesions of pelvic origin (genitourinary or recto-sigmoid tumors) but primary tumor is exceptional.

CASE PRESENTATION: Here we describe a case of primary penile adenocarcinoma, which eventually metastasized to the brain.

CONCLUSIONS: The rarity of the event prompted us to also explore related reviews and to discuss the incidence, physiopathology, diagnosis, and therapy of penile adenocarcinoma cancer.

Mots-clefs

Spinal cord compression caused by metastasis of a non-seminomatous testicular tumour with a predominant Yolk sac component in a 26-year-old man

Di Gregorio M, Pochet C, Dupont M, Nollevaux MC, Lorge F, D'Hondt L.

Références	*Doi*	*IF*
J Cancer Sci & Therap 2020;12(4):006-009		*0,45*

Abstract

BACKGROUND: Pure testicular yolk sac tumours are extremely rare among adults, and there is no prior report of spinal cord compression syndrome due to yolk sac testis tumour metastasis in an adult.

CASE PRESENTATION: Here we describe the case of a 26-year-old male with a testicular yolk sac tumour that was found when a vertebral metastasis caused spinal cord compression. Symptoms included lower back pain and a growing painless testicular mass. Treatment comprised emergency surgical spinal cord decompression and orchidectomy, followed by 3 cycles of bleomycin, etoposide, and platinum (BEP) chemotherapy, and then 3 cycles of etoposide and platinum and 40 Gy vertebral radiotherapy. One year later, cement leaked into the spinal duct, prompting a return of compression syndrome. Corporectomy was performed, followed by osteosynthesis. The patient's treatment was consolidated with 34 months and zoledronic acid administration. Although spinal metastasis from a yolk sac tumour is extremely rare, it must be considered in young adults with a testicular mass who exhibit pain or limb numbness. Such cases warrant rapid surgical decompression and radical orchidectomy, followed by adjuvant chemotherapy.

CONCLUSION: Our case is atypical due to the patient's age and the disease presentation. Spinal cord compression syndrome caused by yolk sac tumor metastasis is extremely rare in adulthood, and usually has a bad prognosis when diagnosed late.

Mots-clefs

A single Proteus mirabilis lineage from human and animal sources: a hidden reservoir of OXA-23 or OXA-58 carbapenemases in Enterobacterales

Bonnin RA, Girlich D, Jousset AB, Gauthier L, Cuzon G, **Bogaerts P,** Haenni M, Madec JY, Couvé-Deacon E, Barraud O, Glaser P, **Glupczynski Y,** Dortet L, Nass T.

Références	*Doi*	*IF*
Sci Rep. 2020;10(1):9160	*10.1038/s41598-020-66161-z.*	*4,011*

Abstract

In Enterobacterales, the most common carbapenemases are Ambler's class A (KPC-like), class B (NDM-, VIM- or IMP-like) or class D (OXA-48-like) enzymes. This study describes the characterization of twenty-four OXA-23 or OXA-58 producing-Proteus mirabilis isolates recovered from human and veterinary samples from France and Belgium. Twenty-two P. mirabilis isolates producing either OXA-23 (n = 21) or OXA-58 (n = 1), collected between 2013 and 2018, as well as 2 reference strains isolated in 1996 and 2015 were fully sequenced. Phylogenetic analysis revealed that 22 of the 24 isolates, including the isolate from 1996, belonged to a single lineage that has disseminated in humans and animals over a long period of time. The blaOXA-23 gene was located on the chromosome and was part of a composite transposon, Tn6703, bracketed by two copies of IS15ΔII. Sequencing using Pacbio long read technology of OXA-23-producing P. mirabilis VAC allowed the assembly of a 55.5-kb structure encompassing the blaOXA-23 gene in that isolate. By contrast to the blaOXA-23 genes, the blaOXA-58 gene of P. mirabilis CNR20130297 was identified on a 6-kb plasmid. The acquisition of the blaOXA-58 gene on this plasmid involved XerC-XerD recombinases. Our results suggest that a major clone of OXA-23-producing P. mirabilis is circulating in France and Belgium since 1996.

Mots-clefs

ARIA digital anamorphosis: Digital transformation of health and care in airway diseases from research to practice.

Bousquet J, et al **(Vandenplas O.)**

Références	*Doi*	*IF*
Allergy. 2020 Jun 8. [Epub ahead of print]	*10.1111/all.14422*	*8,706*

Abstract

Digital anamorphosis is used to define a distorted image of health and care that may be viewed correctly using digital tools and strategies. MASK digital anamorphosis represents the process used by MASK to develop the digital transformation of health and care in rhinitis.It strengthens the ARIA change management strategy in the prevention and managementof airway disease. The MASK strategy is based on validated digital tools. Using the MASK digital tool and the CARAT online enhanced clinical framework, solutions for practical steps of digital enhancement of care are proposed.

Mots-clefs

ARIA; CARAT; MASK; asthma; digital transformation of health and care; rhinitis.

Tafasitamab plus lenalidomide in relapsed or refractory diffuse large B-cell lymphoma (L-MIND): a multicentre, prospective, single-arm, phase 2 study

Salles G, Duell J, González Barca E, Tournilhac O, Jurczak W, Liberati AM, Nagy Z, Obr A, Gaidano G, **André M**, Kalakonda N, Dreyling M, Weirather J, Dirnberger-Hertweck M, Ambarkhane S, Fingerle-Rowson G, Maddocks K.

Références	*Doi*	*IF*
Lancet Oncol. 2020 Jul;21(7):978-988	*10.1016/S1470-2045(20)30225-4*	*34,340*

Abstract

BACKGROUND: Patients with relapsed or refractory diffuse large B-cell lymphoma who are ineligible for autologous stem-cell transplantation have poor outcomes and few treatment options. Tafasitamab (MOR208) is an Fc-enhanced, humanised, anti-CD19 monoclonal antibody that has shown preclinical and single-agent activity in patients with relapsed or refractory B-cell malignancies. Preclinical data suggested that tafasitamab might act synergistically with lenalidomide. We aimed to assess the antitumour activity and safety of tafasitamab plus lenalidomide in patients with relapsed or refractory diffuse large B-cell lymphoma who were ineligible for autologous stem-cell transplantation.

METHODS: In this multicentre, open-label, single-arm, phase 2 study (L-MIND), patients older than 18 years with histologically confirmed diffuse large B-cell lymphoma, who relapsed or had refractory disease after previous treatment with one to three systemic regimens (with at least one anti-CD20 therapy), were not candidates for high-dose chemotherapy and subsequent autologous stem-cell transplantation, had an Eastern Cooperative Oncology Group performance status of 0-2, and had measurable disease at baseline were recruited from 35 academic and community hospitals in ten countries. Patients received coadministered intravenous tafasitamab (12 mg/kg) and oral lenalidomide (25 mg/day) for up to 12 cycles (28 days each), followed by tafasitamab monotherapy (in patients with stable disease or better) until disease progression. The primary endpoint was the proportion of patients with an objective response (centrally assessed), defined as a complete or partial response according to the 2007 International Working Group response criteria for malignant lymphoma. Antitumour activity analyses are based on all patients who received at least one dose of both tafasitamab and lenalidomide; safety analyses are based on all patients who received at least one dose of either study medication. Recruitment is complete, and the trial is in follow-up. This trial is registered with ClinicalTrials.gov, NCT02399085.

FINDINGS: Between Jan 18, 2016, and Nov 15, 2017, 156 patients were screened: 81 were enrolled and received at least one dose of either study medication, and 80 received at least one dose of both tafasitamab and lenalidomide. Median follow-up was 13•2 months (IQR 7•3-20•4) as of data cutoff on Nov 30, 2018. 48 (60%; 95% CI 48-71) of 80 patients who received tafasitamab plus lenalidomide had an objective response: 34 (43%; 32-54) had a complete response and 14 (18%; 10-28) had a partial response. The most common treatment-emergent adverse events of grade 3 or worse were neutropenia (39 [48%] of 81 patients), thrombocytopenia (14 [17%]), and febrile neutropenia (ten [12%]). Serious adverse events occurred in 41 (51%) of 81 patients. The most frequently reported serious adverse events (in two or more patients) were pneumonia (five [6%]), febrile neutropenia (five [6%]), pulmonary embolism (three [4%]), bronchitis (two [2%]), atrial fibrillation (two [2%]), and congestive cardiac failure (two [2%]).

INTERPRETATION: Tafasitamab in combination with lenalidomide was well tolerated and resulted in a high proportion of patients with relapsed or refractory diffuse large B-cell lymphoma ineligible for autologous stem-cell transplantation having a complete response, and might represent a new therapeutic option in this setting.

Mots-clefs

Cytomegalovirus; Ulcerative Colitis; Vedolizumab; qPCR

Liver transplant for alcoholic hepatitis: a current clinical overview

Marot A, Moreno C, Deltenre P.

Références	*Doi*	*IF*
Expert Rev Gastroenterol Hepatol. 2020 Jul;14(7):591-600	*10.1080/17474124.2020.1775579*	*2,940*

Abstract

INTRODUCTION: Current management of severe alcoholic hepatitis is based on corticosteroid therapy and abstinence from alcohol. As liver transplantation is lifesaving in alcoholic hepatitis patients at high risk of early death, refractory alcoholic hepatitis has become a new indication for liver transplantation in highly selected non-responders to corticosteroids.

AREAS COVERED: This review summarizes the conditions under which liver transplantation may be considered, the available data on liver transplantation for refractory alcoholic hepatitis and explores the ethical considerations surrounding the use of liver transplantation in these patients.

EXPERT OPINION: Selection of candidates should be made according to available scientific results on post-liver transplantation outcomes and the risk of alcohol relapse. Currently, a strict selection process based on a good psychosocial profile, including social stability, no previous treatments for alcohol dependence, no current drug use, and no co-existing severe mental disorder, seems to be the best way to manage these issues. Well-defined selection criteria for candidate selection and accurate tools to predict alcohol relapse after liver transplantation are still needed.

Mots-clefs

Abstinence; alcohol relapse; alcoholic hepatitis; liver transplantation; prognosis

Long-Term Stability of Lorazepam in Sodium Chloride 0.9% Stored at Different Temperatures in Different Containers

Colsoul ML, Breuer A, Goderniaux N, Hecq JD, Soumoy L, Bihin B, Jamart J, Galanti L.

Références	*Doi*	*IF*
Hosp Pharm. 2020 Jun;55(3):188-192	*10.1177/0018578719836649*	*0,550*

Abstract

BACKGROUND AND OBJECTIVE: Infusion containing lorazepam is used by geriatric department to limit anxiety disorders in the elderly. Currently, these infusions are prepared according to demand by the nursing staff, but the preparation in advance in a centralized service could improve quality of preparation and time management. The aim of this study was to investigate the long-term stability of this infusion in polypropylene syringes stored at 5 ± 3°C. Then, results obtained were compared with stability data of lorazepam in syringes stored at room temperature, glass bottles at 5 ± 3°C, and glass bottles at room temperature.

METHOD: Eight syringes and 6 bottles of infusion were prepared by diluting 1 mL lorazepam 4 mg in 23 mL of NaCl 0.9% under aseptic conditions. Five syringes and 3 bottles were stored at 5 ± 3°C and 3 syringes and 3 bottles were stored at room temperature for 30 days. During the storage period, particle appearance or color change were periodically checked by visual and microscope inspection. Turbidity was assessed by measurements of optical density (OD) at 3 wavelengths (350 nm, 410 nm, 550 nm). The stability of pH was also evaluated. The lorazepam concentrations were measured at each time point by high-performance liquid chromatography with ultraviolet detector at 220 nm.

RESULTS: Solutions were physically unstable in syringes at 5 ± 3°C after 4 days: crystals and a drop of OD at 350 nm were observed. However, pH was stable. After 2 days, solutions were considered as chemically unstable because a loss of lorazepam concentration higher than 10% was noticed: the lower 1-sided confidence limit at 95% was below 90% of the initial concentration. To assess temperature and polypropylene influence, results were compared with those obtained for syringes at room temperature and bottles at 5 ± 3°C and room temperature. Precipitation, drop of OD at 350 nm, and chemical instability were observed in all conditions.

CONCLUSION: Solutions of lorazepam were unstable after 2 days in syringes at 5 ± 3°C. Preparation in advance appears, therefore, not possible for the clinical use. Storage conditions (temperature and form) do not improve the stability.

Mots-clefs

Communication; Healthcare professionals; Interaction analysis system; Patient outcome; Patient-centeredness; Uncertainty

Quantity does not equal quality: Scientific principles cannot be sacrificed

Rzymski P, Nowicki M, Mullin GE, Abraham A, Rodríguez-Román E, Petzold MB, Bendau A, Sahu KK, Ather A, Naviaux AF, **Janne P, Gourdin M,** Delanghe JR, Ochs HD, Talmadge JE, Garg M, Hamblin MR, Rezaei N.

Références	*Doi*	*IF*
Int Immunopharmacol. 2020 Jun 22;86:106711 Online ahead of print	*10.1016/j.intimp.2020.106711*	*3,361*

Abstract

Mots-clefs

Invasive Pulmonary Aspergillosis in Chronic Obstructive Pulmonary Disease Exacerbations

Bulpa P, Duplaquet F, Dimopoulos G, Vogelaers D, Blot S.

Références	*Doi*	*IF*
Semin Respir Crit Care Med. 2020 Online ahead of print	*10.1055/s-0040-1702210*	*2,028*

Abstract

Nowadays, reports in the literature support that patients with severe chronic obstructive pulmonary disease (COPD) are at higher risk to develop invasive pulmonary aspergillosis (IPA). However, the interpretation of Aspergillus-positive cultures from the airways in critically ill COPD is still a challenge. Indeed, as the patient could be merely colonized, tissue samples are required to ascertain IPA diagnosis but they are rarely obtained before death. Consequently, diagnosis is often only suspected on the basis of a combination of three elements: clinical characteristics, radiological images (mostly thoracic CT scan), and microbiological, and occasionally serological, results. To facilitate the analysis of these data, several algorithms have been developed, and the best effectiveness has been demonstrated by the Clinical algorithm. This is of importance as IPA prognosis in these patients remains presently very poor and using such an algorithm could promote prompter diagnosis, early initiation of treatment, and subsequently improved outcome. While the most classical presentation of IPA in critically ill COPD patients features a combination of obstructive respiratory failure, antibiotic-resistant pneumonia, recent or chronic corticosteroid therapy, and positive Aspergillus cultures from the lower respiratory tract, the present article will also address less typical presentations and discuss the most appropriate treatments which could alter prognosis.

Mots-clefs

Rapid-deployment aortic valve replacement in high-risk patients with severe endocarditis

Piperata A, **Kalscheuer G**, Metras A, Pernot M, Albadi W, Taymoor S, Peltan J, Oses P, Barandon L, Bottio T, Gerosa G, Labrousse L.

Références	*Doi*	*IF*
J Cardiovasc Surg (Torino). 2020 Jun 19 [Epub ahead of print]	*10.23736/S0021-9509.20.11349-1*	*1,415*

Abstract

BACKGROUND: Surgical management of aortic valve endocarditis in high risk patients is controversial and the ideal treatment has not been found yet. We describe a selected series of eight patients treated with rapid-deployment aortic valve prosthesis as a therapeutic solution for minimizing the risks associated with annulus manipulation in case of severe aortic infective endocarditis.

METHODS: Eight consecutive patients (five men and three women) with a mean age of 74.3 ± 7.2 years, mean logistic EuroSCORE II of 16.0 % ± 0.1 %, affected by aortic native (1 patient) , or prosthetic valve endocarditis (7 patients) , were treated with Edwards Intuity Elite implantation. Hemodynamic performance and infective data were collected pre-, intra-, and postoperatively with a mean follow-up of 2.7 ± 0.7 years.

RESULTS: One case of in-hospital mortality was noted. None of the patients had any embolic or infective complication postoperatively. The cardiopulmonary bypass and aortic cross-clamp times were 148.4 ± 41.6 and 90.5 ± 25.3 min, respectively. The postoperative echocardiographic controls indicated a mean transvalvular gradient of 16.7 ± 3.0 mmHg and one case of paravalvular leaks (2 +). Two patients underwent epigastric permanent pacemaker implantation. During the follow- up, seven patients were alive, with no evidence of symptoms or recurrences of endocarditis or embolic episodes. No new paravalvular leaks were noted, and the mean gradient on the valves was 12.4 ± 3.4 mmHg.

CONCLUSIONS: Rapid deployment aortic valve replacement in selected very high-risk patients affected by infective endocarditis could be a reasonable choice with acceptable results. However, further studies are needed to confirm these results.

Mots-clefs

Unexpected kinetics of anti-SARS-CoV-2 total antibodies in two patients with chronic lymphocytic leukemia

Favresse J, Eucher C, Elsen M, **Graux C,** Goebels P, Laffineur K, Nicolas JB, Dogné JM, Douxfils J.

Références	*Doi*	*IF*
Br J Haematol. 2020 Jun 17 Online ahead of print	*10.1111/bjh.16954*	*5,518*

Abstract

Recently, Baumann et al. described the characteristics and outcomes of four patients with chronic lymphocytic leukemia (CLL) diagnosed with symptomatic COVID-19. The course of the disease was mild, and no patient required admission in an intensive care unit. The authors speculate that the CLL-related immunodeficiency might be beneficial in the outcome of the COVID-19 and deserved further investigation. No specific serological testing information was provided. The American Society of Hematology (ASH) has published recommendations on the prevention of COVID-19 in patients with CLL but again not on serological investigations.

Mots-clefs

COVID-19; SARS-CoV-2; kinetics; serology; symptom onset

Gait improvement in adults with hemiparesis using a rolling cane: A cross-over trial

Deltombe T, Leeuwerck M, Jamart J, Frederick A, Dellicour G.

Références	*Doi*	*IF*
J Rehabil Med. 2020 Jun 11 Online ahead of print	*10.2340/16501977-2705*	

Abstract

OBJECTIVE: To assess the changes in gait parameters in adults with hemiparesis using a rolling cane (quadripod cane with small wheels; Wheeleo®) compared with a classical quadripod cane.
DESIGN: A prospective, multicentric, cross-over randomized trial.
PARTICIPANTS: Thirty-two ambulatory adults with hemiparesis.
METHODS: Participants were assessed using a quadripod cane and a rolling cane. Outcome measures were changes in: walking speed during a 10-m walk test and a 6-min walk test; frequency of 2-step gait; physiological cost index; number of therapist interventions to control the balance; perceived exertion; and participant satisfaction.
RESULTS: The following outcomes were improved with the use of a rolling cane: walking speed during a 10-m walk test at comfortable (+22%: $p < 0.001$) and maximal (+30: $p < 0.001$) speeds; walking speed (+50%: $p < 0.001$) and distance (+49%: $p < 0.001$) during a 6-min walk test; and the frequency of 2-step gait. The physiological cost index, perceived exertion, and number of therapist interventions to control the balance remained unchanged. Participant satisfaction improved.
CONCLUSION: A rolling cane, Wheeleo®, increases walking speed in adults with hemiparesis without additional risk of falls.

Mots-clefs

fall, assistive device; walking speed; hemiplegia

Proteomic analysis in lupus mice identifies Coronin-1A as a potential biomarker for lupus nephritis

Nicolaou O, Sokratous K, Makowska Z, Morell M, De Groof A, **Montigny P,** Hadjisavvas A, Michailidou K, Oulas A, Spyrou GM, Demetriou C, Alarcón-Riquelme ME, Psarellis S, Kousios A, Lauwerys B, Kyriacou K.

Références	*Doi*	*IF*
Arthritis Res Ther. 2020 Jun 18;22(1):147	*10.1186/s13075-020-02236-6*	*4,148*

Abstract

BACKGROUND: Approximately 50% of systemic lupus erythematosus (SLE) patients develop nephritis, which is among the most severe and frequent complications of the disease and a leading cause of morbidity and mortality. Despite intensive research, there are still no reliable lupus nephritis (LN) markers in clinical use that can assess renal damage and activity with a high sensitivity and specificity. To this end, the aim of this study was to identify new clinically relevant tissue-specific protein biomarkers and possible underlying molecular mechanisms associated with renal involvement in SLE, using mass spectrometry (MS)-based proteomics.

METHODS: Kidneys were harvested from female triple congenic B6.NZMsle1/sle2/sle3 lupus mice model, and the respective sex- and age-matched C57BL/6 control mice at 12, 24 and 36 weeks of age, representing pre-symptomatic, established and end-stage LN, respectively. Proteins were extracted from kidneys, purified, reduced, alkylated and digested by trypsin. Purified peptides were separated by liquid chromatography and analysed by high-resolution MS. Data were processed by the Progenesis QIp software, and functional annotation analysis was performed using DAVID bioinformatics resources. Immunofluorescence and multiple reaction monitoring (MRM) MS methods were used to confirm prospective biomarkers in SLE mouse strains as well as human serum samples.

RESULTS: Proteomic profiling of kidney tissues from SLE and control mice resulted in the identification of more than 3800 unique proteins. Pathway analysis revealed a number of dysregulated molecular pathways that may be mechanistically involved in renal pathology, including phagosome and proximal tubule bicarbonate reclamation pathways. Proteomic analysis supported by human transcriptomic data and pathway analysis revealed Coronin-1A, Ubiquitin-like protein ISG15, and Rho GDP-dissociation inhibitor 2, as potential LN biomarkers. These results were further validated in other SLE mouse strains using MRM-MS. Most importantly, experiments in humans showed that measurement of Coronin-1A in human sera using MRM-MS can segregate LN patients from SLE patients without nephritis with a high sensitivity (100%) and specificity (100%).

CONCLUSIONS: These preliminary findings suggest that serum Coronin-1A may serve as a promising non-invasive biomarker for LN and, upon validation in larger cohorts, may be employed in the future as a screening test for renal disease in SLE patients.

Mots-clefs

Biomarkers; LN; Lupus; Lupus nephritis; Mass spectrometry; Proteomics; SLE

Late diagnosis of a sinus venosus defect allowed by atrial fibrillation ablation

Robaye B, Guedes A, Seldrum S, Collet B, Xhaët O.

Références	*Doi*	*IF*
Eur Heart J Cardiovasc Imaging. 2020 Jun 12;jeaa160 Online ahead of print	*10.1093/ehjci/jeaa160*	*4,841*

Abstract

Mots-clefs

Confection des stomies à travers le temps (suite et fin)

Lemaire J.

Références	*Doi*	*IF*
Afiscep.bemag 2020 29 :22-23		

Abstract

Les premiers rapports de stomies (du Grec Stoma – Bouche), remontent à l'antiquité, stomies alors séquellaires à des plaies abdominales par armes blanches, et non réalisées dans un objectif salvateur pour le patient. Ainsi, la plaie d'un viscère creux, souvent fatale car menant à la péritonite, pouvait malgré tout conduire dans certains cas au développement d'une fistule digestive à la peau, qu'elle soit d'origine gastrique, colique, grêle ou encore urinaire. Il faudra attendre le 17ème siècle pour que la communauté médicale se penche objectivement sur l'intérêt de la réalisation de stomies, notamment digestives. Par ailleurs, c'est grâce au développement de l'anesthésie à la moitié du 19ème siècle que la chirurgie abdominale digestive a pu évoluer, rendant les techniques opératoires réalisables.

Mots-clefs

Stomie digestive; Urostomie; Continence; Evolution

Quel risque d'hémorragie intracrânienne avec l'aspirine en prévention primaire ?

Mouzon A, Sennesael AL.

Références	*Doi*	*IF*
Minerva 2020		*2,366*

Abstract

Nous avons déjà analysé à plusieurs reprises dans Minerva la place de l'aspirine en prévention cardiovasculaire primaire (1-6). Ces 3 analyses les plus récentes font état d'un manque d'arguments (balance bénéfice-risque non favorable) pour accorder une place à l'aspirine en prévention primaire. Ces analyses se basaient sur 2 méta-analyses récentes (6,7). Une autre étude réalisée en Nouvelle-Zélande a cherché à déterminer quels patients resteraient malgré tout bénéficiaires de l'aspirine en prévention primaire (c'est-à-dire les patients à haut risque cardiovasculaire et faible risque de saignements) (8). Le risque d'hémorragie intracrânienne (HI) est le plus redouté avec l'aspirine. Les nouvelles données disponibles (trois larges études randomisées contrôlées (9-11)), le manque de consistance des données sur le risque d'HI ainsi que le manque de détails sur les sous-types de saignements les plus fréquents ont mené à la réalisation d'une revue systématique et méta-analyse.

Mots-clefs

Severe influenza/respiratory syncytial virus infections and hospital antimicrobial stewardship opportunities: impact of a 4-year surveillance including molecular diagnosis

Bourgeois M, Ausselet N, Gérard V, de Cannière L, Scius N, Michaux I, Huang TD, Bogaerts P, Vandamme C, Bihin B, Delaere B.

Références	*Doi*	*IF*
Inf Control Hosp Epidemiol 2020; 1-6.	*10.1017/ice.2020.260*	*2,938*

Abstract

OBJECTIVE: To assess the prevalence of influenza and respiratory syncytial virus (RSV) in adults hospitalized for a respiratory infection in the winter months and to evaluate the impact of a viral diagnosis on empirical antimicrobial management (antibiotics and antivirals).
DESIGN: Observational cohort study.
SETTING: Acute-care university hospital.
PATIENTS: The study included 963 adult patients hospitalized over a 4-year surveillance period.
METHODS: Annual surveillance timelines were defined according to epidemiological criteria related to the circulation of RSV and influenza viruses in the general population. Patients were screened following a severe acute respiratory infection (SARI) case definition at the emergency department and were enrolled for molecular assay targeting influenza/RSV viruses after oral informed consent. Epidemiological and clinical data were recorded prospectively, microbiological investigations, antimicrobial management, and outcome data were reviewed retrospectively.
RESULTS: An influenza or RSV virus was documented in 316 of 963 patients (33%). Optimization of antimicrobial management (AM) was achieved in 162 of 265 patients (61%) with a positive viral diagnosis and no bacterial infection at admission (AM treatment not initiated, n = 111; discontinued, n = 51). In contrast, only 128 of 462 patients (28%) with negative microbiological investigations did not have AM treatment initiated (n = 116) or had such treatment discontinued (n = 12). Early, targeted antiviral treatment was prescribed in 235 of 253 patients (93%) confirmed with influenza. Epidemiological, clinical, and outcome data were similar in both groups.
CONCLUSION: Epidemiological surveillance associated with influenza/RSV molecular diagnosis in adults hospitalized for severe winter respiratory infections dramatically enhanced antimicrobial management.

Mots-clefs

The in- and out-of-hospital management of HF patients: results from a nationwide Belgian survey

Ghys L, Martens P, Heggermont W, **Gabriel L,** Heyse A, Troisfontaines P, Maris M.

Références	*Doi*	*IF*
Acta Cardiol. 2020 Jun 8;1-10. Online ahead of print.	*10.1080/00015385.2020.1765105*	*0,951*

Abstract

BACKGROUND: We conducted a nationwide survey to describe the in-and out-of-hospital flow (diagnosis, treatment and follow-up) of patients with heart failure with reduced ejection fraction (HFrEF).Method: A survey was developed with five dedicated HF cardiologists. The data are all self-reported by cardiologists.

RESULTS: The response rate was 84%. Presence of a dedicated HF cardiologist or HF nurse was indicated by 49% and 46% of the hospitals respectively. Devices ($p < .05$), angiotensin receptor neprilysin inhibitors, and rehabilitation are considered more standard of care therapy by dedicated compared to non-dedicated HF cardiologists. Most cardiologists indicated that target dosages of HF drugs can be reached in 25–75% of patients. Achieving >75% of the target dose seems easier for angiotensin converting enzyme inhibitor/angiotensin receptor blockers (ACEI/ARB) (22%) and mineralocorticoid receptor antagonists (25%), compared to β-blockers (10%) and angiotensin receptor neprilysin inhibitors (7%). 62%, 49% and 4% of the cardiologists indicated to use subtypes of angiotensin converting enzyme inhibitors, angiotensin receptor blockers and β-blockers respectively not validated in the HF population. In the acute setting, dedicated HF cardiologists (23%) are less influenced by blood parameters for decongestion compared to non-dedicated HF cardiologists (39%). They tend to change patients more to guideline-recommended drugs (60% vs 47%). Six minutes walk test and ergospirometry are significantly more used by dedicated compared to non-dedicated HF cardiologists for HF drug change (17% and 29% vs 2% and 4%).

CONCLUSION: This survey showed that a minority of hospitals have HF care. Those that do, report a higher implementation of guideline-recommended diagnosis, treatment and follow-up of HF patients. Competent authorities could use this survey as a tool to improve HF care.

Mots-clefs

HF nurse; HFrEF; multidisciplinary (treatment); survey.

Patient exposure data and operator dose in coronary interventional procedures: Impact of body-mass index and procedure complexity

Zanca F, **Collard C,** Alexandre N, **Deprez F, Salembier JP, Henry M, Rombaut E, Massart PE.**

Références	*Doi*	*IF*
Phys Med. 2020 Jun 24;76:38-43 Online ahead of print.	*10.1016/j.ejmp.2020.05.006*	*2,485*

Abstract

PURPOSE: The aim of this study was to assess patient exposure data and operator dose in coronary interventional procedures, when considering patient body-mass index and procedure complexity.

METHODS: Total air kerma area product (P_{KA}), Air-Kerma (AK), Fluoroscopy time (FT), operator dose and patient body-mass index (BMI) from 97 patients' procedures (62 coronary angiography (CA) and 35 Percutaneous Coronary Intervention (PCI) were collected for one year. For PCI procedures, also the complexity index-CI was collected. Continuous variables for each of the 2 groups procedures (CA and PCI) were compared as medians with interquartile range and using Mann-Whitney U test. Multiple group data were compared using Kruskal-Wallis test (significance: $p < 0.05$).

RESULTS: Median P_{KA} was 63 and 125 Gy cm² for CA and PCI respectively ($p < 0.001$); FT was 3 and 14 min, respectively ($p < 0.001$). P_{KA} and FT significantly increased ($p < 0.05$) with BMI class for CA procedures. P_{KA} and FT also increased in function of CI class for PCI, thought significantly only for FT ($p < 0.001$), possibly because of the low number of PCI procedures included; cine mode contributed most to P_{KA}. Significant dose variability was observed among cardiologists for CA procedures ($p < 0.001$).

CONCLUSIONS: Dose references levels for P_{KA} and FT in interventional cardiology should be defined - on a sufficient number of procedures- in function of CI and BMI classes. These could provide an additional tool for refining a facility's quality assurance and optimization processes. Dose variability associated with cardiologists underlines the importance of continuous training.

Mots-clefs

Complexity index; Coronary interventional procedures; Diagnostic reference levels; Operator dose; Patient exposure data

Granulocyte colony-stimulating factor for alcoholic hepatitis: A systematic review and meta-analysis of randomised controlled trials

Marot A, Singal AK, Moreno C, Deltenre P.

Références	*Doi*	*IF*
JHEP Rep. 2020 Jun 18;2(5):100139	*10.1016/j.jhepr.2020.100139*	

Abstract

BACKGROUND & AIMS: Granulocyte colony-stimulating factor (G-CSF) treatment has been proposed as a therapeutic option for patients with severe alcoholic hepatitis (AH). The aim of this study was to synthesise available evidence on the efficacy of G-CSF in AH.

METHODS: This is a meta-analysis of randomised controlled trials evaluating the risk of death at 90 days and the risk of infection.

RESULTS: Seven studies were included. Of a total of 396 patients, 336 had AH, 197 patients were treated with G-CSF, and 199 received placebo or pentoxifylline. In overall meta-analysis, G-CSF therapy was associated with a reduced risk of death at 90 days (odds ratio [OR] 0.28; 95% CI 0.09-0.88; p = 0.03). There was high heterogeneity between studies (p <0.001; I 2 = 80%). Five studies were performed in Asia and 2 in Europe. In the subgroup analysis of studies performed in Asia, G-CSF was associated with a reduced risk of death (OR 0.15; 95% CI 0.08-0.28; p <0.001; heterogeneity: p = 0.5, I 2 = 0%). In European studies, G-CSF tended to increase mortality compared with controls, although the difference was not significant (OR 1.89; 95% CI 0.90-3.98; p = 0.09; heterogeneity: p = 0.8, I 2 = 0%). In Asian studies, occurrence of infection was less frequent in G-CSF patients than in controls (OR 0.12; 95% CI 0.06-0.23; p <0.001; heterogeneity: p = 0.7, I 2 = 0%), whilst in European studies, this occurrence was not statistically different (OR 0.92; 95% CI 0.50-1.68; p = 0.78; heterogeneity: p = 0.5, I 2 = 0%). In sensitivity analyses, excluding studies that included patients with acute-on-chronic liver failure (ACLF) other than AH, patients with less severe AH, or patients with non-response to corticosteroids, results were similar to those of overall analyses, both for mortality and occurrence of infection.

CONCLUSIONS: Granulocyte colony-stimulating factor therapy may improve the prognosis of patients with severe AH. However, owing to the high heterogeneity observed in the overall analysis caused by conflicting results between the Asian and European studies, G-CSF cannot currently be recommended for AH, particularly in Europe. Whether these differences can be explained by ethnic differences or disparities in patient selection and disease severity remains unclear.

LAY SUMMARY: The main finding of this meta-analysis is that the use of granulocyte colony-stimulating factor (G-CSF) is associated with a mortality reduction of more than 70% at 3 months amongst patients with alcoholic hepatitis (AH) compared with controls who did not receive this therapy. However, owing to the high heterogeneity observed in the overall analysis caused by conflicting results between the Asian and European studies, G-CSF cannot currently be recommended for patients with AH, particularly in Europe. Whether these differences can be explained by ethnic differences or disparities in patient selection and disease severity remains unclear.

Mots-clefs

AASLD, American Association for the Study of Liver Diseases; ACG, American College of Gastroenterology; AH, alcoholic hepatitis; Alcoholic hepatitis; EASL, European Association for the Study of the Liver; G-CSF, granulocyte colony-stimulating factor; Infection; Liver regeneration; MELD, model for end-stage liver disease; NA, not available; NIAAA, National Institute on Alcohol Abuse and Alcoholism; OR, odds ratio.

Factors Associated With Pulmonary Embolism Among Coronavirus Disease 2019 Acute Respiratory Distress Syndrome: A Multicenter Study Among 375 Patients

Soumagne T, Lascarrou JB, Hraiech S, **Horlait G, Higny J**, d'Hondt A, Grimaldi D, Gaudry S, Courcelle R, Carbutti G, Blonz G, Aissaoui N, Vinsonneau C, Vandenbunder B, Textoris J, Szychowiak P, Serck N, Sauneuf B, Piagnerelli M, Ly A, Lejeune F, Lefebvre L, Piton G.

Références	*Doi*	*IF*
Crit Care Explor. 2020 Jun 25;2(7):e0166	*10.1097/CCE.0000000000000166*	*6,700*

Abstract

Risk factors associated with pulmonary embolism in coronavirus disease 2019 acute respiratory distress syndrome patients deserve to be better known. We therefore performed a post hoc analysis from the COronaVirus-Associated DIsease Study (COVADIS) project, a multicenter observational study gathering 21 ICUs from France (n = 12) and Belgium (n = 9). Three-hundred seventy-five consecutive patients with moderate-to-severe acute respiratory distress syndrome and positive coronavirus disease 2019 were included in the study. At day 28, 15% were diagnosed with pulmonary embolism. Known risk factors for pulmonary embolism including cancer, obesity, diabetes, hypertension, and coronary artery disease were not associated with pulmonary embolism. In the multivariate analysis, younger age (‹ 65 yr) (odds ratio, 2.14; 1.17-4.03), time between onset of symptoms and antiviral administration greater than or equal to 7 days (odds ratio, 2.39; 1.27-4.73), and use of neuromuscular blockers greater than or equal to 7 days (odds ratio, 1.89; 1.05-3.43) were independently associated with pulmonary embolism. These new findings reinforce the need for prospective studies that will determine the predictors of pulmonary embolism among patients with severe coronavirus disease 2019.

Mots-clefs

acute respiratory distress syndrome; coronavirus disease 2019; critically ill; pulmonary embolism; severe acute respiratory syndrome coronavirus 2; thrombotic complications.

The Covid-19 pandemic: Media overdose, fear and soon antonomasia? A squared pandemic

Naviaux AF, **Janne P, Gourdin M.**

Références	*Doi*	*IF*
Ann Med Psychol (Paris). 2020 Jun 28 Online ahead of print	*10.1016/j.amp.2020.06.014*	*0,28*

Abstract

Mots-clefs

Prevention of thrombotic risk in hospitalized patients with COVID-19 and hemostasis monitoring.

Susen S, Tacquard CA, Godon A, Mansour A, Garrigue D, Nguyen P, Godier A, Testa S, Levy JH, Albaladejo P, Gruel Y; GIHP and GFHT (**Mullier F**).

Références	*Doi*	*IF*
Crit Care. 2020 Jun 19;24(1):364	*10.1186/s13054-020-03000-7*	*6,700*

Abstract

COVID-19 is an infection induced by the SARS-CoV-2 coronavirus, and severe forms can lead to acute respiratory distress syndrome (ARDS) requiring intensive care unit (ICU) management. Severe forms are associated with coagulation changes, mainly characterized by an increase in D-dimer and fibrinogen levels, with a higher risk of thrombosis, particularly pulmonary embolism. The impact of obesity in severe COVID-19 has also been highlighted.In this context, standard doses of low molecular weight heparin (LMWH) may be inadequate in ICU patients, with obesity, major inflammation, and hypercoagulability. We therefore urgently developed proposals on the prevention of thromboembolism and monitoring of hemostasis in hospitalized patients with COVID-19. Four levels of thromboembolic risk were defined according to the severity of COVID-19 reflected by oxygen requirement and treatment, the body mass index, and other risk factors. Monitoring of hemostasis (including fibrinogen and D-dimer levels) every 48 h is proposed. Standard doses of LMWH (e.g., enoxaparin 4000 IU/24 h SC) are proposed in case of intermediate thrombotic risk (BMI ‹ 30 kg/m2, no other risk factors and no ARDS). In all obese patients (high thrombotic risk), adjusted prophylaxis with intermediate doses of LMWH (e.g., enoxaparin 4000 IU/12 h SC or 6000 IU/12 h SC if weight › 120 kg), or unfractionated heparin (UFH) if renal insufficiency (200 IU/kg/24 h, IV), is proposed. The thrombotic risk was defined as very high in obese patients with ARDS and added risk factors for thromboembolism, and also in case of extracorporeal membrane oxygenation (ECMO), unexplained catheter thrombosis, dialysis filter thrombosis, or marked inflammatory syndrome and/or hypercoagulability (e.g., fibrinogen › 8 g/l and/or D-dimers › 3 µg/ml). In ICU patients, it is sometimes difficult to confirm a diagnosis of thrombosis, and curative anticoagulant treatment may also be discussed on a probabilistic basis. In all these situations, therapeutic doses of LMWH, or UFH in case of renal insufficiency with monitoring of anti-Xa activity, are proposed.In conclusion, intensification of heparin treatment should be considered in the context of COVID-19 on the basis of clinical and biological criteria of severity, especially in severely ill ventilated patients, for whom the diagnosis of pulmonary embolism cannot be easily confirmed.

Mots-clefs

Anticoagulant; COVID-19; Coagulation; Heparin; Obesity; Thrombosis

BSGIE survey on COVID-19 and gastrointestinal endoscopy in Belgium : results and recommendations.

Sinonquel P, Aerts M, **Badaoui A**, Bisschops R, Blero D, Demedts I, Deprez P, Dewint P, Eisendrath P, Hindryckx P, Lemmers A, Roelandt P, Snauwaert C, Toussaint E, Moreels T.

Références	*Doi*	*IF*
Acta Gastroenterol Belg. 2020 Apr-Jun;83(2):344-354		*0.537*

Abstract

BACKGROUND AND AIMS: With the first wave of the COVID-19 pandemic declining, activities in the gastrointestinal clinic are being recommenced after a period of stringent measures. Since a second COVID-19 wave is not entirely ruled out health care professionals might remain faced with the need to perform endoscopic procedures in patients with a confirmed positive or unknown COVID-19 status. With this report we aim to provide a practical relevant overview of preparation and protective measures for gastroenterologists based on the currently available guidelines and our local experience and results of a national Belgian survey, to guarantee a fast recall of an adequate infection prevention if COVID-19 reoccurs.

METHODS: From the 23rd of March 2020 and the 13th of May 2020 we performed a Pubmed, Embase and Medline search, resulting in 37 papers on COVID-19 and endoscopy. Additionally, we combined these data with data acquired from the national BSGIE survey amongst Belgian gastroenterologists.

RESULTS: Based on 72 completed surveys in both university and non-university hospitals, the results show (1) a dramatic (‹20%) or substantial (‹50%) decrease of normal daily endoscopy in 74% and 22% of the units respectively, (2) a difference in screening and protective measures between university and non-university hospitals. These findings were subsequently compared with the current guidelines.

CONCLUSION: Based on new data from the BSGIE survey and current guidelines we tried to realistically represent the current COVID-19 trends in protective measures, screening and indications for endoscopy and to provide a practical overview as preparation for a possible second wave.

Mots-clefs

Belgium; Covid-19; endoscopy; personal protective equipment (PPE).

Tinea from Guinea pig

Flament J, Thomas M.

Références	*Doi*	*IF*
J Xiangya Med 2020;5:19	*10.21037/jxym.2020.03.07*	

Abstract

Mots-clefs

JUILLET

Curative Outcomes Following Blinatumomab in Adults With Minimal Residual Disease B-cell Precursor Acute Lymphoblastic Leukemia

Gökbuget N, Zugmaier G, Dombret H, Stein A, Bonifacio M, **Graux C,** Faul C, Brüggemann M, Taylor K, Mergen N, Reichle A, Horst HA, Havelange V, Topp MS, Bargou RC.

Références	*Doi*	*IF*
Leuk Lymphoma 2020 Jul 3;1-9 Online ahead of print.	*10.1080/10428194.2020.1780583*	*2,674*

Abstract

Minimal residual disease (MRD) is the strongest predictor of relapse in B-cell precursor acute lymphoblastic leukemia (BCP-ALL). In BLAST study (NCT01207388), adults with BCP-ALL in remission with MRD after chemotherapy received blinatumomab, a CD19 BiTE® immuno-oncotherapy, 15 µg/m2/day for up to four 6-week cycles (4 weeks continuous infusion, 2 weeks off). Survival was evaluated for 110 patients, including 74 who received HSCT in continuous complete remission. With a median follow-up of 59•8 months, median survival (months) was 36•5 (95% CI: 22.0-not reached [NR]). Median survival was NR (29.5-NR) for complete MRD responders (n = 84) and 14.4 (3.8-32.3) for MRD non-responders (n = 23; p = 0.002); after blinatumomab and HSCT, median survival was NR (25.7-NR) (n = 61) and 16.5 (1.1-NR) (n = 10; p = 0.065), respectively. This final analysis suggests complete MRD response during blinatumomab treatment is curative. Post-hoc analysis of study data suggests while post blinatumomab HSCT may be beneficial in appropriate patients, long-term survival without HSCT is also possible.

Mots-clefs

Acute lymphoblastic leukemia; allogeneic hematopoietic stem cell transplantation; blinatumomab; immuno-oncotherapy; minimal residual disease.

Endothelin-1 Induces Lysyl Oxidase Expression in Pulmonary Artery Smooth Muscle Cells

Maruyama HM, Sakai S, Dewachter L, Dewachter C, **Rondelet B**, Naeije R, Ieda M.

Références	*Doi*	*IF*
Can J Physiol Pharmacol. 2020 Jul 2 Online ahead of print.	*10.1139/cjpp-2019-0658*	*1,946*

Abstract

BACKGROUND: The increase in thickening of the arterial wall of pulmonary arterial hypertension (PAH) includes cellular proliferation as well as matrix deposition and interrupted internal elastic lamina (IEL) consisting of a thick homogeneous sheet of elastin. Little is, although, known about the detail of IEL formation in PAH. Endothelin-1 is overexpressed in pulmonary arterioles of PAH. We aimed to examine the expression of genes contributing to IEL formation in pulmonary artery smooth muscle cells (PASMCs) especially focused on lysyl oxidase (LOx), an extracellular matrix enzyme that catalyzes the cross-linking of collagens or elastin.

METHODS AND RESULTS: We quantified mRNA expressions of genes contributing to IEL formation including LOx in PASMCs using real-time quantitative PCR. We stimulated human PASMCs with endothelin-1 with prostacyclin or trapidil. Endothelin-1 significantly increased LOx expression. Prostacyclin and trapidil restored endothelin-1-induced LOx expression to the basal level. Endothelin-1 increased LOx expression strongly in PASMCs from PAH patients compared to those from controls. Trapidil reduced LOx expression only in PASMCs from PAH patients.

CONCLUSIONS: Overexpressed endothelin-1 in PAH patients can increase expression of LOx and agitate cross-linking of elastin and collagen resulting in ectopic deposition of them in the vascular media.

Mots-clefs

Secondary organizing pneumonia associated with sertraline: A case report

Trungu J, Pirard L, Vandenhove T, Stanciu Pop C, Dahlqvist C, Sohy C.

Références	*Doi*	*IF*
Respir Med Case Rep. 2020 Jul 2;31:101141	*10.1016/j.rmcr.2020.101141*	*0,42*

Abstract

Cryptogenic organizing pneumonia is a rare idiopathic interstitial lung disease, with a well-defined clinical-radiological and pathological entity. It may also be secondary to several causes. Rapid clinical and imaging improvement is usually obtained with corticosteroid therapy. We report here, to the best of our knowledge, a unique case of organizing pneumonia associated with Sertraline, a selective serotonin reuptake inhibitor, commonly used in antidepressant therapy.

Mots-clefs

AEP, acute eosinophilic pneumonia; BAL, broncho-alveolar lavage; COP, cryptogenic organizing pneumonia; Cryptogenic organizing pneumonia; Drug-induced lung disease; HRCT, high resolution computed tomography; ILD, interstitial lung disease; Interstitial lung disease; OP, organizing pneumonia; SSRI, selective serotonin reuptake inhibitor; Sertraline; mMRC, modified Medical Research Council dyspnea scale

Occupational Rhinitis

Vandenplas O, Hox V, Bernstein D.

Références	*Doi*	*IF*
J Allergy Clin Immunol Pract. 2020 Jul 10;S2213-2198(20)30687-5. Online ahead of print.	*10.1016/j.jaip.2020.06.047*	*7,574*

Abstract

There is convincing evidence that tight relationships between the upper and lower airways also apply to the workplace context. Most patients with occupational asthma (OA) also suffer from occupational rhinitis (OR), although OR is 2 to 3 times more common than OA. OR most often precedes the development of OA, especially when high-molecular-weight protein agents are involved, and longitudinal cohort studies have confirmed that OR is associated with an increased risk for the development of OA. The level of exposure to sensitizing agents at the workplace is the most important determinant for the development of IgE-mediated sensitization and OR. Atopy is a risk factor for the development of IgE-mediated sensitization only to high-molecular-weight agents. In workers with work-related rhinitis symptoms, documentation of IgE-mediated sensitization to a workplace agent via skin prick testing or serum specific IgE confirms a diagnosis of probable OR, whereas specific nasal provocation testing in the laboratory remains the reference method to establish a definite diagnosis of OR. Complete avoidance of exposure to the causal agent is the most effective therapeutic option for controlling work-related nasal symptoms and preventing the development of OA. If complete elimination of exposure is expected to induce meaningful adverse socioeconomic consequences, reduction of exposure can be considered as an alternative approach, but it is important to consider the individual risk factors for the development of OA to implement a more personalized management of OR.

Mots-clefs

High-molecular-weight agents; Irritants; Low-molecular-weight agents; Nasal provocation tests; Occupational rhinitis; specific IgE antibodies

3D navigation system allows remarkable reduction in fluoroscopy use during cavo-tricuspid isthmus ablation

Robaye B, Deceuninck O, Blommaert D, Godeaux V, Dormal F, Collet B, Ballant E, Huys F, Guedes A, Xhaët O.

Références	*Doi*	*IF*
J Interv Card Electrophysiol. 2020 Jul 8 Online ahead of print.	*10.1007/s10840-020-00818-7*	*1,329*

Abstract

PURPOSE: Typical atrial flutter (AFL) is one of the most common supraventricular arrhythmias. Its treatment mainly relies on cavo-tricuspid isthmus (CTI) ablation, which can be performed either using conventional fluoroscopy, still mainly used, or 3D navigation system to track the position of the catheter. The aim of this study is to show that the use of a 3D navigation system allows a dramatic reduction of fluoroscopy use during CTI ablation, without any loss of efficacy, time, or safety.

METHODS: In this single-center study, we retrospectively compared 134 cases of CTI ablation performed for typical AFL without a 3D navigation system with 95 cases of CTI ablation performed with such a 3D system. We compared the rates of procedural success (defined as obtaining a bidirectional electrical conduction block), freedom from AFL recurrence at 1-year follow-up, procedural time and safety, and fluoroscopy use.

RESULTS: Compared to conventional fluoroscopy, the use of a 3D navigation system significantly decreased the duration of fluoroscopy use (2 min 13 s ± 2 min 16 s versus 14 min 41 s ± 10 min 39 s, p ‹ 0.0001) and dose-area products (1567.9 ± 1329.5 mGy cm2 versus 8263.3 ± 8636.6 mGy cm2, p ‹ 0.0001). Procedure success rates, duration, and safety were not different between groups.

CONCLUSIONS: The use of 3D navigation during CTI ablation substantially reduces fluoroscopy use duration, without reducing the success rates and safety or prolonging the procedure duration, as compared to conventional fluoroscopy. We therefore suggest the generalization of this navigation system.

Mots-clefs

3D; Ablation; Atrial flutter; Carto; Cavo-tricuspid isthmus; Fluoroscopy; Flutter ablation; Supraventricular tachycardia; Typical flutter.

Medication Counselling in Older Patients Prior to Hospital Discharge: A Systematic Review

Capiau A, Foubert K, Van der Linden L, Walgraeve K, Hias J, **Spinewine A, Sennesael AL,** PetrovicM, Somers A, Belgian Society for Gerontology and Geriatrics (BSGG)

Références	*Doi*	*IF*
Drugs Aging. 2020 Jul 8Online ahead of print.	*10.1007/s40266-020-00780-z*	*2,925*

Abstract

BACKGROUND: Older patients are regularly exposed to multiple medication changes during a hospital stay and are more likely to experience problems understanding these changes. Medication counselling is often proposed as an important component of seamless care to ensure appropriate medication use after hospital discharge.
OBJECTIVES: The purpose of this systematic review was to describe the components of medication counselling in older patients (aged ≥ 65 years) prior to hospital discharge and to review the effectiveness of such counselling on reported clinical outcomes.
METHODS: Using Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology (PROSPERO CRD42019116036), a systematic search of MEDLINE, EMBASE and CINAHL was conducted. The QualSyst Assessment Tool was used to assess bias. The impact of medication counselling on different outcomes was described and stratified by intervention content.
RESULTS: Twenty-nine studies were included. Fifteen different components of medication counselling were identified. Discussing the dose and dosage of patients' medications (19/29; 65.5%), providing a paper-based medication list (19/29; 65.5%) and explaining the indications of the prescribed medications (17/29; 58.6%) were the most frequently encountered components during the counselling session. Twelve different clinical outcomes were investigated in the 29 studies. A positive effect of medication counselling on medication adherence and medication knowledge was found more frequently, compared to its impact on hard outcomes such as hospital readmissions and mortality. Yet, evidence remains inconclusive regarding clinical benefit, owing to study design heterogeneity and different intervention components. Statistically significant results were more frequently observed when counselling was provided as part of a comprehensive intervention before discharge.
CONCLUSIONS: Substantial heterogeneity between the included studies was found for the components of medication counselling and the reported outcomes. Study findings suggest that medication counselling should be part of multifaceted interventions, but the evidence concerning clinical outcomes remains inconclusive.

Mots-clefs

Clinical and biological features of PTPN2-deleted adult and pediatric T-cell acute lymphoblastic leukemia

Alcantara M, Simonin M, Lhermitte L, Touzart A, Dourthe ME, Latiri M, Grardel N, Cayuela JM, Chalandon Y, **Graux C**, Dombret H, Ifrah N, Petit A, Macintyre E, Baruchel A, Boissel N, Asnafi V.

Références	*Doi*	*IF*
Blood Adv. 2019 Jul 9;3(13):1981-1988	*10.1182/bloodadvances.2018028993*	*0,65*

Abstract

Protein tyrosine phosphatase nonreceptor type 2 (PTPN2) is a phosphatase known to be a tumor suppressor gene in T-cell acute lymphoblastic leukemia (T-ALL). Because the full clinicobiologic characteristics of PTPN2 loss remain poorly reported, we aimed to provide a comprehensive analysis of PTPN2 deletions within a cohort of 430 patients, including 216 adults and 214 children treated according to the GRAALL03/05 (#NCT00222027 and #NCT00327678) and the FRALLE2000 protocols, respectively. We used multiplex ligation-dependent probe amplification to identify an 8% incidence of PTPN2 deletion, which was comparable in adult (9%) and pediatric (6%) populations. PTPN2 deletions were significantly associated with an αβ lineage and TLX1 deregulation. Analysis of the mutational genotype of adult T-ALL revealed a positive correlation between PTPN2 deletions and gain-of-function alterations in the IL7R/JAK-STAT signaling pathway as well as PHF6 and WT1 mutations. Of note, PTPN2 and PTEN (phosphatase and tensin homolog) deletions were mutually exclusive. Regarding treatment response, PTPN2-deleted T-ALLs were associated with a higher glucocorticoid response and a trend for improved survival in children, but not in adults, with a 5-year cumulative incidence of relapse of 8% for PTPN2-deleted pediatric cases vs 26% (P = .177).

Mots-clefs

Inflammatory bowel disease management during the COVID-19 outbreak: The 10 do's and don'ts from the ECCO-COVID Taskforce

Magro F, **Rahier JF**, Abeu C, MacMahon E, Hart A, Van der Woude CJ, Gordon H, Adamina M, Viget N, Vavricka S, Kucharzik T, Leone S, Siegmund B, Danese S, Peyrin-Biroulet L.

Références	*Doi*	*IF*
J Crohns Colitis. 2020 Jul 29;jjaa160 Online ahead of print	*10.1093/ecco-jcc/jjaa160*	*8,658*

Abstract

Our knowledge on COVID-19 is changing and evolving rapidly, with novel insights and recommendations, almost on a daily basis. It behooves the medical community to provide updated information on a regular basis, on best practice to facilitate optimal care of infected patients and appropriate advice for the general population. This is particularly important in the case of patients with chronic conditions, such as Inflammatory Bowel Disease (IBD). In this paper, we compiled the existing evidence on the impact of COVID-19 in IBD patients and provide guidance and on the most appropriate care to adopt during the pandemic. Our review highlighted that IBD, per se, is not a risk factor for COVID-19. However, all IBD patients with symptoms should be tested for SARS-CoV-2 and the procedures for disease management shall be carefully adapted: i) in SARS-CoV-2 positive IBD patients, medical treatments should be re-evaluated (with particular focus on corticosteroids) always with the purpose of treating active disease and maintaining remission; ii) non-urgent surgeries and endoscopic procedures should be postponed for all patients; iii) online consultancy should be implemented; and iv) hospitalization and surgery should be limited to life threatening situations.

Mots-clefs

Practices and opinions about disclosure of the diagnosis of Alzheimer's disease to patients with MCI or dementia: a survey among Belgian medical experts in the field of dementia

Mormont E, Bier JC, Bruffaerts R, Cras P, De Deyn P, Deryck O, Engelborghs S, Petrovic M, Picard G, Segers K, Thiery E, Versijpt J, Hanseeuw B.

Références	*Doi*	*IF*
Acta Neurol Belg. 2020 Jul 26 Online ahead of print	*10.1007/s13760-020-01448-6*	*1,989*

Abstract

Previous surveys revealed that only a minority of clinicians routinely disclosed the diagnosis of Alzheimer's disease (AD) to their patients. Many health professionals fear that the disclosure could be harmful to the patient. Recent advances in the development of biomarkers and new diagnostic criteria allow for an earlier diagnosis of AD at the mild cognitive impairment (MCI) stage. The Belgian Dementia Council, a group of Belgian experts in the field of dementia, performed a survey among its 44 members about their opinions and practices regarding disclosure of the diagnosis of AD, including MCI due to AD, and its consequences. Twenty-six respondents declared that they often or always disclose the diagnosis of AD to patients with dementia and to patients with MCI when AD CSF biomarkers are abnormal. The majority observed that the disclosure of AD is rarely or never harmful to the patients. Their patients and their caregivers rarely or never demonstrated animosity towards the clinicians following disclosure of the diagnosis of AD. These results should reassure clinicians about the safety of AD diagnosis disclosure in most cases whether the patient is at the MCI or the dementia stage.

Mots-clefs

Alzheimer disease; Diagnosis; Disclosure; Mild cognitive impairment.

Impact of COVID-19-related public containment measures on the ST elevation myocardial infarction epidemic in Belgium: a nationwide, serial, cross-sectional study

Claeys M, Argacha JF, Collart P, Carlier M, Van Caenegem O, Sinnaeve P, Desmet W, Dubois P, Stammen F, Gevaert S, Pourbaix S, Coussement P, Beauloye C, **Evrard P**, Brasseur O, Fierens F, Marechal P, Schelfaut D, Floré V, **Hanet C**.

Références	*Doi*	*IF*
Acta Cardiol. 2020 Jul 30;1-7 Online ahead of print	*10.1080/00015385.2020.1796035*	*0,81*

Abstract

AIMS: The current study assessed the impact of COVID-19-related public containment measures (i.e. lockdown) on the ST elevation myocardial infarction (STEMI) epidemic in Belgium.

METHODS AND RESULTS: Clinical characteristics, reperfusion therapy modalities, COVID-19 status and in-hospital mortality of consecutive STEMI patients who were admitted to Belgian hospitals for percutaneous coronary intervention (PCI) were recorded during a three-week period starting at the beginning of the lockdown period on 13 March 2020. Similar data were collected for the same time period for 2017-2019. An evaluation of air quality revealed a 32% decrease in ambient NO2 concentrations during lockdown (19.5 µg/m³ versus 13.2 µg/m³, p ‹ .001). During the three-week period, there were 188 STEMI patients admitted for PCI during the lockdown versus an average 254 STEMI patients before the lockdown period (incidence rate ratio = 0.74, p = .001). Reperfusion strategy was predominantly primary PCI in both time periods (96% versus 95%). However, there was a significant delay in treatment during the lockdown period, with more late presentations (›12 h after onset of pain) (14% versus 7.6%, p = .04) and with longer door-to-balloon times (median of 45 versus 39 min, p = .02). Although the in-hospital mortality between the two periods was comparable (5.9% versus 6.7%), 5 of the 7 (71%) COVID-19-positive STEMI patients died.

CONCLUSION: The present study revealed a 26% reduction in STEMI admissions and a delay in treatment of STEMI patients. Less exposure to external STEMI triggers (such as ambient air pollution) and/or reluctance to seek medical care are possible explanations of this observation.

Mots-clefs

COVID-19; PCI; STEMI; containment; mortality; pollution

Long-term overall survival and toxicities of ABVD vs BEACOPP in advanced Hodgkin lymphoma: A pooled analysis of four randomized trials

André M, Carde P, Viviani S, Bellei M, Fortpied C, Hutchings M, Gianni A, Brice P, Casasnovas O, Gobbi P, Zinzani PL, Dupuis J, Iannitto E, Rambaldi A, Brière J, Clément-Filliatre L, Heczko M, Valagussa P, Douxfils J, **Depaus J**, Federico M, Mounier N.

Références	*Doi*	*IF*
Cancer Med. 2020 Jul 25 Online ahead of print	*10.1002/cam4.3298*	*3,491*

Abstract

PURPOSE: We explored the potential overall survival (OS) benefit of bleomycin, etoposide, doxorubicin (Adriamycin), cyclophosphamide, vincristine (Oncovin), procarbazine, and prednisone (BEACOPP) over doxorubicin (Adriamycin), bleomycin, vinblastine, and dacarbazine (ABVD) in a pooled analysis of four randomized trials.
PATIENTS AND METHODS: Primary objective was to evaluate the OS impact of BEACOPP using individual patient data. Secondary objectives were progression-free survival (PFS), secondary cancers, and use of autologous stem cell transplantation (ASCT).
RESULTS: About 1227 patients were included. The 7-year OS was 84.3% (95% CI 80.8-87.2) for ABVD vs 87.7% (95% CI 84.5-90.2) for BEACOPP. Two follow-up periods were identified based on survival curves and hazard ratio (HR) over time. For the first 18 months, there was no difference. For the second period of ≥18 months, ABVD patients had a higher death risk (HRABVD vs BEACOPP = 1.59; 95% CI 1.09-2.33). A Cox model stratified by trial and evaluating the effect of treatment and International Prognostic Index (IPI) score as fixed effects showed that both were statistically significant (treatment, P = .0185; IPI score, P = .0107). The 7-year PFS was 71.1% (95% CI 67.1-74.6) for ABVD vs 81.1% (95% CI 77.5-84.2) for BEACOPP (P < .001). After ABVD, 25 secondary cancers (4.0%) were reported with no myelodysplasia (MDS)/acute myeloid leukemia (AML) compared to 36 (6.5%) after BEACOPP, which included 13 patients with MDS/AML. Following ABVD, 86 patients (13.8%) received ASCT vs 39 (6.4%) for BEACOPP.
CONCLUSIONS: This analysis showed a slight improvement in OS for BEACOPP and confirmed a PFS benefit. Frontline use of BEACOPP instead of ABVD increased secondary leukemia incidence but halved the requirement for ASCT.

Mots-clefs

ABVD; BEACOPP; Hodgkin lymphoma; overall survival; progression-free survival; secondary cancers

Views of patients with inflammatory bowel disease on the COVID-19 pandemic: a global survey

D'Amico F, **Rahier JF**, Leone S, Peyrin-Biroulet L, Danese S.

Références	*Doi*	*IF*
Lancet Gastroenterol Hepatol. 2020 Jul;5(7):631-632	*10.1016/S2468-1253(20)30151-5*	*14,789*

Abstract

Mots-clefs

Immune-mediated neurological syndromes in SARS-CoV-2-infected patients

Guilmot A, Maldonado Slootjes S, Sellimi A, Bronchain M, Hanseeuw B, Belkhir L, Cyr Yombi J, De Greef J, Pothen L, Yildiz H, Duprez T, Fillée C, Anantharajah A, Capes A, Hantson P, Jacquerye P, Raymackers JM, **London F**, El Sankari S, Ivanoiu A, Maggi P, van Pesch V.

Références	*Doi*	*IF*
J Neurol. 2020 Jul 30;1-7 Online ahead of print.	*10.1007/s00415-020-10108-x*	*3,956*

Abstract

BACKGROUND: Evidence of immune-mediated neurological syndromes associated with the severe acute respiratory syndrome coronavirus (SARS-CoV-2) infection is limited. We therefore investigated clinical, serological and CSF features of coronavirus disease 2019 (COVID-19) patients with neurological manifestations.

METHODS: Consecutive COVID-19 patients with neurological manifestations other than isolated anosmia and/or non-severe headache, and with no previous neurological or psychiatric disorders were prospectively included. Neurological examination was performed in all patients and lumbar puncture with CSF examination was performed when not contraindicated. Serum anti-gangliosides antibodies were tested when clinically indicated.

RESULTS: Of the 349 COVID-19 admitted to our center between March 23rd and April 24th 2020, 15 patients (4.3%) had neurological manifestations and fulfilled the study inclusion/exclusion criteria. CSF examination was available in 13 patients and showed lymphocytic pleocytosis in 2 patients: 1 with anti-contactin-associated protein 2 (anti-Caspr2) antibody encephalitis and 1 with meningo-polyradiculitis. Increased serum titer of anti-GD1b antibodies was found in three patients and was associated with variable clinical presentations, including cranial neuropathy with meningo-polyradiculitis, brainstem encephalitis and delirium. CSF PCR for SARS-CoV-2 was negative in all patients.

CONCLUSIONS: In SARS-Cov-2 infected patients with neurological manifestations, CSF pleocytosis is associated with para- or post-infectious encephalitis and polyradiculitis. Anti-GD1b and anti-Caspr2 autoantibodies can be identified in certain cases, raising the question of SARS-CoV-2-induced secondary autoimmunity.

Mots-clefs

Anti-GD1b; Cerebrospinal fluid; Encephalitis; SARS-CoV-2

DNA methylation profiling and genomic analysis in 20 children with short stature who were born small-for-gestational age

Peeters S, Declerck K, Thomas M, Boudin E, **Beckers D**, Chivu O, Heinrichs C, Devriendt K, de Zegher F, Van Hul W, Vanden Berghe W, De Schepper J, Rooman R, Mortier G.

Références	*Doi*	*IF*
J Clin Endocrinol Metab. 2020 Jul 20;dgaa465 Online ahead of print.	*10.1210/clinem/dgaa465*	*5,399*

Abstract

PURPOSE: In a significant proportion of children born small-for-gestational age (SGA) with failure of catch-up growth, the etiology of short stature remains unclear after routine diagnostic work-up. We wanted to investigate if extensive analysis of the (epi)genome can unravel the cause of growth failure in a significant portion of these children.

PATIENTS AND METHODS: Twenty SGA children treated with growth hormone (GH) because of short stature were selected from the BELGROW database of the Belgian Society for Pediatric Endocrinology and Diabetology for exome sequencing, SNP array and genome-wide methylation analysis to identify the (epi)genetic cause. First year response to GH was compared to the response of SGA patients in the KIGS database.

RESULTS: We identified (likely) pathogenic variants in 4 children (from 3 families) using exome sequencing and found pathogenic CNV in 2 probands using SNP array. In a child harboring a NSD1-containing microduplication, we identified a DNA methylation signature that is opposite to the genome-wide DNA methylation signature of Sotos syndrome. Moreover, we observed multi-locus imprinting disturbances in two children in whom no other genomic alteration could be identified. Five out of 6 children with a genetic diagnosis had an «above average» response to GH.

CONCLUSIONS: The study indicates that a more advanced approach with deep genotyping can unravel unexpected (epi)genomic alterations in SGA children with persistent growth failure. Most SGA children with a genetic diagnosis had a good response to GH treatment.

Mots-clefs

DNA methylation; NSD1; growth hormone; short stature; small for gestational age

Brachytherapy in Belgium in 2018. A national survey of the brachytherapy study group of the Belgian SocieTy for Radiotherapy and Oncology (BeSTRO)

Salembier C, De Hertogh O, Daisne JF, **Palumbo S,** Van Gestel D.

Références	*Doi*	*IF*
Radiother Oncol. 2020 Jul 15;150:245-252 Online ahead of print.	*10.1016/j.radonc.2020.07.010*	*4,856*

Abstract

PURPOSE: To explore the current practices patterns and evaluate the actual brachytherapy (BT) resources in Belgium.

MATERIAL AND METHODS: In 2019, the Brachytherapy Study Group proposed to conduct a survey on behalf of the Belgian SocieTy of Radiation Oncology (BeSTRO) in order to identify current BT practice patterns. An electronic questionnaire was sent to all primary radiotherapy centers in Belgium. This questionnaire was based on the questionnaire that was used by the Italian Association of Radiation Oncology (AIRO) in 2016, asking for: (a) General information on the Radiation Oncology Centre; (b) BT equipment and human resources; (c) BT procedures; (d) BT assessment (number of patients treated annually, treated sites, and different modalities of treatments).

RESULTS: All 24 radiation oncology centers (100% response rate) answered the questionnaire and gave also information on the performance of brachytherapy in their (eventual) satellite centers. Eighteen (18) BT afterloader units were installed and operational in 2018. Thirteen centers mentioned a prostate seed implant program, one center a prostate and eye plaque program and one center only an eye plaque program. Less than 50% of centers have the infrastructure to offer the full-range of BT in their own department. In 2018, 1486 patients received a BT-treatment, 28% of them were treated by prostate seed implant, 8% were treated by eye-(seed) BT and 64% by high dose rate (HDR)/pulsed dose rate (PDR) BT. Forty-five percent of HDR/PDR patients were treated by vaginal dome BT, 22% by intra-uterine BT, 11% by skin BT, 10% by breast BT (almost exclusively in one centre), 8% for benign pathology (keloid) and the remaining 4% were treated for prostate (as a boost or as salvage in one centre), anal, penile, lung or oesophageal cancer.

CONCLUSIONS: Belgian radiotherapy departments often perform BT only in a (highly) selected group of pathologies, resulting in a limited number of patients treated by this technique despite the sufficient availability of BT equipment. Modern indications are often not covered, hence patients do not have regular access to recognized treatment options, possibly leading to inferior oncological outcome. BeSTRO will use the results of this survey to stimulate improvements in training, awareness, education, implementation, collaboration and cooperation in the field of brachytherapy.

Mots-clefs

BeSTRO (Belgian SocieTy of Radiation Oncology); Brachytherapy; Survey

Stratégie de vaccination contre le Covid-19 en Belgique

Tuerlinckx D.

Références	*Doi*	*IF*
Conseil Supérieur de la Santé 2020:9597		

Abstract

Dans cet avis scientifique, qui propose des lignes directrices aux responsables des politiques en matière de santé publique, le Conseil supérieur de la santé de Belgique émet des recommandations sur les groupes à risque dans le cadre de la vaccination contre le Covid-19 pour la population belge. Cet avis vise à proposer aux décideurs politiques des recommandations précises sur les groupes à risque, les groupes prioritaires ainsi qu'une estimation du nombre de vaccins nécessaires si un vaccin contre le Covid-19 voyait le jour

Mots-clefs

COVID-19; PCI; STEMI; containment; mortality; pollution

Neuromuscular blocking agents (NMBA) for COVID-19 acute respiratory distress syndrome: a multicenter observational study

Courcelle R, Gaudry S, Serck N, Blonz G, Lascarrou JB, Grimaldi D, on behalf the COVADIS study group, **Horlait G.**

Références	*Doi*	*IF*
Crit Care. 2020 Jul 19;24(1):446	*10.1186/s13054-020-03164-2*	*6,700*

Abstract

Mots-clefs

AOÛT

Letter to the Editor: « Comparison Between Total Thyroidectomy and Medical Therapy for Amiodarone-Induced Thyrotoxicosis «

Donckier J, Bertrand C.

Références	*Doi*	*IF*
J Clin Endocrinol Metab. 2020 Aug 1;105(8):dgaa298	*10.1210/clinem/dgaa298*	*5,399*

Abstract

Mots-clefs

Post-stroke fatigue: how it relates to motor fatigability and other modifiable factors in people with chronic stroke

Rahamatali M, De Bont N, Valet M, Halkin V, **Hanson P, Deltombe T,** Lejeune T, Selves C.

Références	*Doi*	*IF*
Acta Neurol Belg. 2020 Aug 1 Online ahead of print	*10.1007/s13760-020-01453-9*	*1,989*

Abstract

Post-stroke fatigue (PSF) is a common symptom associated with disability and decreased quality of life. Distinction can be made between perceived fatigue and fatigability. The first aim of this study was to evaluate the prevalence of perceived fatigue and fatigability amongst patients with chronic stroke and to explore how these two parameters relate. The second aim was to study the relationship between modifiable factors (sleep disorders, anxiety, depression and activities of daily living) and fatigue in this population. Sixty-two patients with chronic stroke (› 6 months) were included. Perceived fatigue was evaluated using the Fatigue Severity Scale (FSS). Motor fatigability was assessed with the percent change in meters walked from first to last minute of the 6-min Walk Test and an isometric muscular fatigability test. Subjects also completed self-report questionnaires assessing anxiety and depression (Hospital Anxiety and Depression Scale-HADS), sleep quality (Pittsburgh Sleep Quality Index-PSQI) and activity limitations (ACTIVLIM-stroke). Seventy-one percent of participants presented PSF. There was no correlation between the FSS and motor fatigability. FSS significantly correlated with HADS-Anxiety ($\rho = 0.53$, $P < 0.001$), HADS-depression ($\rho = 0.63$, $P < 0.001$), PSQI ($\rho = 0.51$, $P < 0.001$) and ACTIVLIM ($\rho = -0.30$, $P < 0.05$). A linear regression model showed that the HADS-Depression, the PSQI and the ACTIVLIM explained 46% of the variance of the FSS. A high proportion of chronic stroke patients presents PSF, with no relation between their fatigue and fatigability. Perceived fatigue is associated with potentially modifiable factors: anxious and depressive symptoms, poor sleep quality and activity limitations. Registered at ClinicalTrials.gov (NCT04277234) (21/02/2019).

Mots-clefs

Depression; Fatigability; Fatigue; Stroke.

Studies on hemostasis in COVID-19 deserve careful reporting of the laboratory methods, their significance and their limitations

Hardy M, Douxfils J, **Bareille M, Lessire S,** Gouin- Thibault I, Fontana P, Lecompte T, **Mullier F.**

Références	*Doi*	*IF*
J Thromb Haemost. 2020 Aug Online ahead of print	*10.1111/jth.15061*	*4,157*

Abstract

We read with much interest the recent observational study of Nougier et al., which aimed at studying thrombin generation (TG) and fibrinolysis profiles of COVID-19 patients admitted to an intensive care unit (ICU) or to an internal medicine ward and receiving various schemes of prophylactic heparin.[1] They reported that thrombin potential remained within normal range despite heparin and that fibrinolysis was decreased in relation with increased plasminogen activator inhibitor 1 (PAI-1) and thrombin-activatable fibrinolysis inhibitor (TAFI) antigen plasma levels. Using the rotational thromboelastometry (ROTEM) delta device with EXTEM reagents and the addition of 0.625µg/mL tPA (referred to as 'TEM-tPA'), they reported decreased clot lysis in COVID-19 patients, which was more pronounced in patients who presented a thrombotic event, compared to event-free patients.

Mots-clefs

Blood coagulation tests; COVID-19; Factor Xa; Heparin; Thrombelastography.

Chronic oral corticosteroids use and persistent eosinophilia in severe asthmatics from the Belgian severe asthma registry

Graff S, Vanwynsberghe S, Brusselle G, Hanon S, **Sohy C,** Dupont LJ, Peche R, Michils A, Pilette C, Joos G, Louis RE, Schleich FN.

Références	*Doi*	*IF*
Respir Res. 2020 Aug 12;21(1):214	*10.1186/s12931-020-01460-7*	*3,890*

Abstract

BACKGROUND: Severe asthma (SA) may require frequent courses or chronic use of oral corticosteroids (OCS), inducing many known side effects and complications. Therefore, it is important to identify risk factors of chronic use of OCS in SA, considering the heterogeneity of clinical and inflammatory asthma phenotypes. Another aim of the present analysis is to characterize a subpopulation of severe asthmatics, in whom blood eosinophil counts (BEC) remain elevated despite chronic OCS treatment.

METHODS: In a cross-sectional analysis of 982 SA patients enrolled in the Belgian Severe Asthma Registry (BSAR) between March 2009 and February 2019, we investigated the characteristics of the OCS treated patients with special attention to their inflammatory profile.

RESULTS: At enrollment, 211 (21%) SA patients were taking maintenance OCS (median dose: 8 [IQR: 5-10]) mg prednisone equivalent). BEC was high (› 400/mm3) in 44% of the OCS treated population. Multivariable logistic regression analysis showed that risk factors for chronic use of OCS in SA were late-onset asthma (i.e. age of onset › 40 yr), frequent exacerbations (i.e. ≥2 exacerbations in the previous year) and non-atopic asthma. Late-onset asthma was also a predictor for persistently high BEC in OCS treated SA patients.

CONCLUSION: These data showed a significant association between a persistently high BEC and late-onset asthma in OCS treated SA patients. Whether it is poor compliance to treatment or corticosteroid insensitivity the reasons for this association warrants further investigation.

Mots-clefs

Asthma; Blood eosinophils; Oral corticosteroids.

Benzodiazepine Use and Deprescribing in Belgian Nursing Homes: Results from the COME-ON Study

Evrard P, Henrard S, Foulon V, **Spinewine A.**

Références	*Doi*	*IF*
J Am Geriatr Soc. 2020 Aug 12 Online ahead of print	*10.1111/jgs.16751*	*4,180*

Abstract

BACKGROUND/OBJECTIVES: To describe the use and deprescribing of benzodiazepine receptor agonists (BZRAs) among nursing home residents (NHRs), to evaluate appropriateness of use and to identify factors associated with BZRA use and deprescribing.

DESIGN: Posthoc analysis of the Collaborative Approach to Optimize Medication Use for Older People in Nursing Homes (COME-ON) study, a cluster controlled trial that evaluated the impact of a complex intervention on potentially inappropriate prescriptions (PIPs) in nursing homes (NHs).

SETTING: A total of 54 NHs in Belgium.

PARTICIPANTS: A total of 797 NHRs included in the study who had complete medical, clinical, and medication information at baseline and at the end of the study (month 15).

MEASUREMENTS: Data were recorded by participating healthcare professionals. Reasons why BZRA use was considered as PIPs were assessed using the 2019 American Geriatrics Society Beers Criteria® and the Screening Tool of Older Persons' Prescriptions (STOPP) criteria, version 2. Deprescribing included complete cessation or decreased daily dose. We identified factors at the NHR, prescriber, and NH levels associated with BZRA use and BZRA deprescribing using multivariable binary and multinomial logistic regression, respectively.

RESULTS: At baseline, 418 (52.4%) NHRs were taking a BZRA. The use of BZRA for longer than 4 weeks, with two or more other central nervous system active drugs, and in patients with delirium, cognitive impairment, falls, or fractures was found in more than 67% of BZRA users. Eight NHR-related variables and two prescriber-related variables were associated with regular BZRA use. Deprescribing occurred in 28.1% of BZRA users (32.9% in the intervention group and 22.1% in the control group). In addition to four other factors, dementia (odds ratio [OR] = 2.35; 95% confidence interval [CI] = [1.45-3.83]) and intervention group (OR = 1.74; 95% CI = 1.07-2.87) were associated with deprescribing.

CONCLUSION: Use of BZRAs was highly prevalent, and reasons to consider it as PIP were frequent. Deprescribing occurred in one-fourth of NHRs, which is encouraging. Future interventions should focus on specific aspects of PIPs (ie, indication, duration, drug-drug and drug-disease interactions) as well as on nondementia patients.

Mots-clefs

benzodiazepine; deprescribing; inappropriate prescribing; nursing homes; older adults

Histologic parameter score does not predict short-term survival in severe alcoholic hepatitis

Dubois M, Sciarra A, Trépo E, **Marot A,** Saldarriaga J, Moreno C, Sempoux C, Deltenre P.

Références	*Doi*	*IF*
United European Gastroenterol J. 2020 Aug Online ahead of print	*10.1177/2050640620949737*	*3,546*

Abstract

BACKGROUND AND AIM: The alcoholic hepatitis histologic score has been proposed as a new prognostic tool to assess the risk of death in alcoholic hepatitis. We aimed to evaluate its prognostic value in patients with severe alcoholic hepatitis.

METHODS: Liver biopsies were analysed independently by two pathologists according to the alcoholic hepatitis histologic score. The Laennec staging system was also used to evaluate fibrosis.

RESULTS: One hundred and seven patients were included, and 89% of the patients received corticosteroids. The alcoholic hepatitis histologic score was available in 105 patients. Histologic scoring showed mild, moderate and severe scores in 10, 29 and 66 patients, respectively. Laennec staging was available for 53 patients, among whom 49 had cirrhosis, including 7 with Laennec 4A, 15 with 4B and 27 with 4C. Survival rates in mild, moderate and severe alcoholic hepatitis histologic score groups were 90%, 72% and 69% at 28 days (p = 0.6), 80%, 52% and 63% at 3 months (p = 0.3), and 70%, 41% and 58% at 6 months (p = 0.3), respectively. Within the alcoholic hepatitis histologic score, fibrosis demonstrated the best interobserver reproducibility (agreement = 100%, K = 1.00). Compared to patients with Laennec 4B or 4C cirrhosis, survival rates for patients without cirrhosis or with Laennec 4A cirrhosis were 100% vs 83% at 28 days (p = 0.16), 91% vs 68% at 3 months (p = 0.13), and 82% vs 64% at 6 months (p = 0.2), respectively. In multivariate analysis adjusted for age and for model for end-stage liver disease score, the alcoholic hepatitis histologic score and Laennec stage were not associated with 6-month mortality.

CONCLUSIONS: The alcoholic hepatitis histologic score is not predictive of short-term survival in this cohort of patients with severe alcoholic hepatitis.

Mots-clefs

Alcoholic hepatitis; Laennec staging system; alcoholic hepatitis histologic score; histology.

Clinical, radiological and molecular characterization of intramedullary astrocytomas

Lebrun L, Meléndez B, Blanchard O, De Nève N, Van Campenhout C, Lelotte J, Balériaux D, **Riva M**, Brotchi J, Bruneau M, De Witte O, Decaestecker C, D'Haene N, Salmon I.

Références	*Doi*	*IF*
Acta Neuropathol Commun. 2020 Aug 8;8(1):128	*10.1186/s40478-020-00962-1*	*5,930*

Abstract

Intramedullary astrocytomas (IMAs) are rare tumors, and few studies specific to the molecular alterations of IMAs have been performed. Recently, KIAA1549-BRAF fusions and the H3F3A p.K27M mutation have been described in low-grade (LG) and high-grade (HG) IMAs, respectively. In the present study, we collected clinico-radiological data and performed targeted next-generation sequencing for 61 IMAs (26 grade I pilocytic, 17 grade II diffuse, 3 LG, 3 grade III and 12 grade IV) to identify KIAA1549-BRAF fusions and mutations in 33 genes commonly implicated in gliomas and the 1p/19q regions. One hundred seventeen brain astrocytomas were analyzed for comparison. While we did not observe a difference in clinico-radiological features between LG and HG IMAs, we observed significantly different overall survival (OS) and event-free survival (EFS). Multivariate analysis showed that the tumor grade was associated with better OS while EFS was strongly impacted by tumor grade and surgery, with higher rates of disease progression in cases in which only biopsy could be performed. For LG IMAs, EFS was only impacted by surgery and not by grade. The most common mutations found in IMAs involved TP53, H3F3A p.K27M and ATRX. As in the brain, grade I pilocytic IMAs frequently harbored KIAA1549-BRAF fusions but with different fusion types. Non-canonical IDH mutations were observed in only 2 grade II diffuse IMAs. No EGFR or TERT promoter alterations were found in IDH wild-type grade II diffuse IMAs. These latter tumors seem to have a good prognosis, and only 2 cases underwent anaplastic evolution. All of the HG IMAs presented at least one molecular alteration, with the most frequent one being the H3F3A p.K27M mutation. The H3F3A p.K27M mutation showed significant associations with OS and EFS after multivariate analysis. This study emphasizes that IMAs have distinct

Mots-clefs

Intramedullary astrocytomas-glial tumor-spinal cord-targeted next-generation sequencing-H3F3A K27M-KIAA1549-BRAF.

Effects of Time-Interval since Blood Draw and of Anticoagulation on Platelet Testing (Count, Indices and Impedance Aggregometry): A Systematic Study with Blood from Healthy Volunteers

Hardy M, Lessire S, Kasikci S, Baudar J, Guldenpfennig M, Collard A, Dogné JM**, Chatelain B, Jacqmin H,** Lecompte T**, Mullier F.**

Références	*Doi*	*IF*
J Clin Med. 2020 Aug 4;9(8):2515	*10.3390/jcm9082515*	*3,303*

Abstract

Platelet count, indices (mean volume, young-immature platelet fraction) and aggregation are widely used laboratory parameters to investigate primary hemostasis. We performed a systematic, thorough evaluation of the influence of the time-interval since blood draw from 20 healthy individuals and of the anticoagulation of collected blood on such parameters. Blood was anticoagulated with citrate, K2-ethylenediaminetetraacetic acid (EDTA) and hirudin and analyzed 5, 30, 60, 120 and 180 min after blood draw. Multiple electrode aggregometry (MEA) was performed with either hirudin (half-diluted with NaCl) or citrate samples (half-diluted with NaCl or CaCl2 3 mM). Platelet count and indices (Sysmex XN-20) were rather stable over time with EDTA blood. MEA results were lower with citrate blood than with hirudin blood; supplementation with calcium was partially compensatory. MEA results were also lower when performed less than 30 or more than 120 min after blood draw. Platelet clumping, quantitatively estimated with microscope examination of blood smears, was more important in hirudin blood than citrate or EDTA blood and could explain some of the differences observed between preanalytical variables. The results stress once more the importance of preanalytical variables in hemostasis laboratory testing. Decision thresholds based on those tests are only applicable within specific preanalytical conditions.

Mots-clefs

IPF; MPV; aggregometry; anticoagulant; citrate; hirudin; multiplate; platelet count; platelet function; preanalytical.

Development of an NGS-Based Workflow for Improved Monitoring of Circulating Plasmids in Support of Risk Assessment of Antimicrobial Resistance Gene Dissemination

Berbers B, Ceyssens PJ, **Bogaerts P,** Vanneste K, Roosens N, Marchal K, De Keersmaecker S.

Références	*Doi*	*IF*
Antibiotics (Basel). 2020 Aug 11;9(8):503	*10.3390/antibiotics9080503*	*2,921*

Abstract

Antimicrobial resistance (AMR) is one of the most prominent public health threats. AMR genes localized on plasmids can be easily transferred between bacterial isolates by horizontal gene transfer, thereby contributing to the spread of AMR. Next-generation sequencing (NGS) technologies are ideal for the detection of AMR genes; however, reliable reconstruction of plasmids is still a challenge due to large repetitive regions. This study proposes a workflow to reconstruct plasmids with NGS data in view of AMR gene localization, i.e., chromosomal or on a plasmid. Whole-genome and plasmid DNA extraction methods were compared, as were assemblies consisting of short reads (Illumina MiSeq), long reads (Oxford Nanopore Technologies) and a combination of both (hybrid). Furthermore, the added value of conjugation of a plasmid to a known host was evaluated. As a case study, an isolate harboring a large, low-copy mcr-1-carrying plasmid (>200 kb) was used. Hybrid assemblies of NGS data obtained from whole-genome DNA extractions of the original isolates resulted in the most complete reconstruction of plasmids. The optimal workflow was successfully applied to multidrug-resistant Salmonella Kentucky isolates, where the transfer of an ESBL-gene-containing fragment from a plasmid to the chromosome was detected. This study highlights a strategy including wet and dry lab parameters that allows accurate plasmid reconstruction, which will contribute to an improved monitoring of circulating plasmids and the assessment of their risk of transfer.

Mots-clefs

DNA extraction; Flongle; MiSeq; MinION; antimicrobial resistance; conjugation; hybrid assembly; mobile elements; next-generation sequencing; plasmids; surveillance.

Puumala hantavirus: an imaging review

Lebecque O, Dupont M.

Références	*Doi*	*IF*
Acta Radiol. 2020 Aug;61(8):1072-1079	*10.1177/0284185119889564*	*1,635*

Abstract

Puumala virus (PUUV) is the most common hantavirus in Europe. It is known to cause nephropathia epidemica, which is considered a mild type of hemorrhagic fever with renal syndrome. However, it does not only involve the kidneys and is rarely accompanied by symptomatic hemorrhage. We review the imaging abnormalities caused by PUUV infection, from head to pelvis, emphasizing the broad spectrum of possible findings and bringing further support to a previously suggested denomination «Hantavirus disease» that would encompass all clinical manifestations. Although non-specific, knowledge of radiological appearances is useful to support clinically suspected PUUV infection, before confirmation by serology.

Mots-clefs

Hantavirus; Puumala virus; hemorrhagic fever with renal syndrome; review

Takotsubo Syndrome Associated With COVID-19: And the InterTAK Diagnosis Score?

Reper P, Oguz F, Henrie J, **Horlait G**.

Références	*Doi*	*IF*
JACC Case Rep. 2020 Sep;2(11):1835	*10.1016/j.jaccas.2020.07.047*	

Abstract

Mots-clefs

The national Australian survey about nurses' knowledge of evidence based guidelines for ventilated patients: and the Belgian national bundle campaign?

Reper P, Van der Brempt I, Haelterman M.

Références	*Doi*	*IF*
Intensive Crit Care Nurs. 2020 Aug 19;102914	*10.1016/j.iccn.2020.102914*	*1,886*

Abstract

Mots-clefs

SARS-CoV-2 Detection for Diagnosis Purposes in the Setting of a Molecular Biology Research Lab

Coupeau D, Burton N, Lejeune N, Loret S, Petit A, Pejakovic S, Poulain F, Bonil L, Trozzi G, Wiggers L, Willemart K, André E, Laenen L, Cuypers L, Van Ranst M, **Bogaerts P**, Muylkens B, Albert Gillet N.

Références	*Doi*	*IF*
Methods Protoc. 2020 Aug 18;3(3):E59	*10.3390/mps3030059*	*3,812*

Abstract

The emergence of the SARS-CoV-2 virus and the exponential growth of COVID-19 cases have created a major crisis for public health systems. The critical identification of contagious asymptomatic carriers requires the isolation of viral nucleic acids, reverse transcription, and amplification by PCR. However, the shortage of specific proprietary reagents or the lack of automated platforms have seriously hampered diagnostic throughput in many countries. Here, we provide a procedure for SARS-CoV-2 detection for diagnostic purposes from clinical samples in the setting of a basic research molecular biology lab. The procedure details the necessary steps for daily analysis of up to 500 clinical samples with a team composed of 12 experienced researchers. The protocol has been designed to rely on widely available reagents and devices, to cope with heterogeneous clinical specimens, to guarantee nucleic acid extraction from very scarce biological material, and to minimize the rate of false-negative results.

Mots-clefs

COVID-19; RTqPCR; SARS-CoV-2; diagnosis

Advances in Platelet Function Testing-Light Transmission Aggregometry and Beyond

Le Blanc J, **Mullier F**, Vayne C, Lordkipanidzé M.

Références	*Doi*	*IF*
J Clin Med. 2020 Aug 13;9(8):2636	*10.3390/jcm9082636*	*3,303*

Abstract

Platelet function testing is essential for the diagnosis of hemostasis disorders. While there are many methods used to test platelet function for research purposes, standardization is often lacking, limiting their use in clinical practice. Light transmission aggregometry has been the gold standard for over 60 years, with inherent challenges of working with live dynamic cells in specialized laboratories with independent protocols. In recent years, standardization efforts have brought forward fully automated systems that could lead to more widespread use. Additionally, new technical approaches appear promising for the future of specialized hematology laboratories. This review presents developments in platelet function testing for clinical applications.

Mots-clefs

light transmission aggregometry; platelet functional tests; platelets; standardization.

The Effect of Repeated abobotulinumtoxinA (Dysport®) Injections on Walking Velocity in Persons with Spastic Hemiparesis Caused by Stroke or Traumatic Brain Injury

Esquenazi A, Brashear A, **Deltombe T**, Rudzinska-Bar M, Krawczyk M, Skoromets A, W O'Dell M, Grandoulier AS, Vilain C, Picaut P, Gracies JM

Références	*Doi*	*IF*
PM R. 2020 Aug 2. Online ahead of print.	*10.1002/pmrj.12459*	*1,821*

Abstract

BACKGROUND: Botulinum toxin (BoNT) injections were shown to improve muscle tone of limbs in patients with spasticity. However, limited data are available regarding the effects of repeated BoNT injections on walking ability.
OBJECTIVE: To assess changes in walking velocity (WV), step length, and cadence under different test conditions after repeated treatment with abobotulinumtoxinA (aboBoNT-A; Dysport) in spastic lower limb muscles.
DESIGN: Secondary analysis of an open-label, multiple-cycle extension (National Clinical Trials number NCT01251367) to a phase III, double-blind, randomized, placebo-controlled, single-treatment cycle study, in adults with chronic hemiparesis (NCT01249404).
SETTING: Fifty-two centers across Australia, Belgium, the Czech Republic, France, Hungary, Italy, Poland, Portugal, Russia, Slovakia, and the United States.
PATIENTS: 352 Ambulatory adults (18-80 years) with spastic hemiparesis and gait dysfunction caused by stroke or traumatic brain injury, with a comfortable barefoot WV of 0.1 to 0.8 m/s.
INTERVENTIONS: Up to four aboBoNT-A treatment cycles, administered to spastic lower limb muscles.
MAIN OUTCOME MEASUREMENTS: Changes from baseline in comfortable and maximal barefoot and with shoes WV (m/s), step length (m/step), and cadence (steps/minutes).
RESULTS: At Week 12 after four injections, WV improved by 0.08 to 0.10 m/s, step length by 0.03 to 0.04 m/step, and cadence by 3.9 to 6.2 steps/minutes depending on test condition (all $P < .0001$ to .0003 vs baseline). More patients (7% to 17%) became unlimited community ambulators (WV ≥0.8 m/s) across test conditions compared with baseline, with 39% of 151 patients classified as unlimited community ambulators in at least one test condition and 17% in all four test conditions.
CONCLUSIONS: Clinically meaningful and statistically significant improvements in WV, step length, and cadence under all four test conditions were observed in patients with spastic hemiparesis after each aboBoNT-A treatment cycle.

Mots-clefs

BeSTRO (Belgian SocieTy of Radiation Oncology); Brachytherapy; Survey

Phylogeographical Analysis Reveals the Historic Origin, Emergence, and Evolutionary Dynamics of Methicillin-Resistant Staphylococcus aureus ST228

Abdelbary M, Feil E, Senn L, Petignat C, Prod'hom G, Schrenzel J, François P, Werner G, Layer F, Strommenger B, Pantosti A, Monaco M, **Denis O,** Deplano A, Grundmann H, Blanc D.

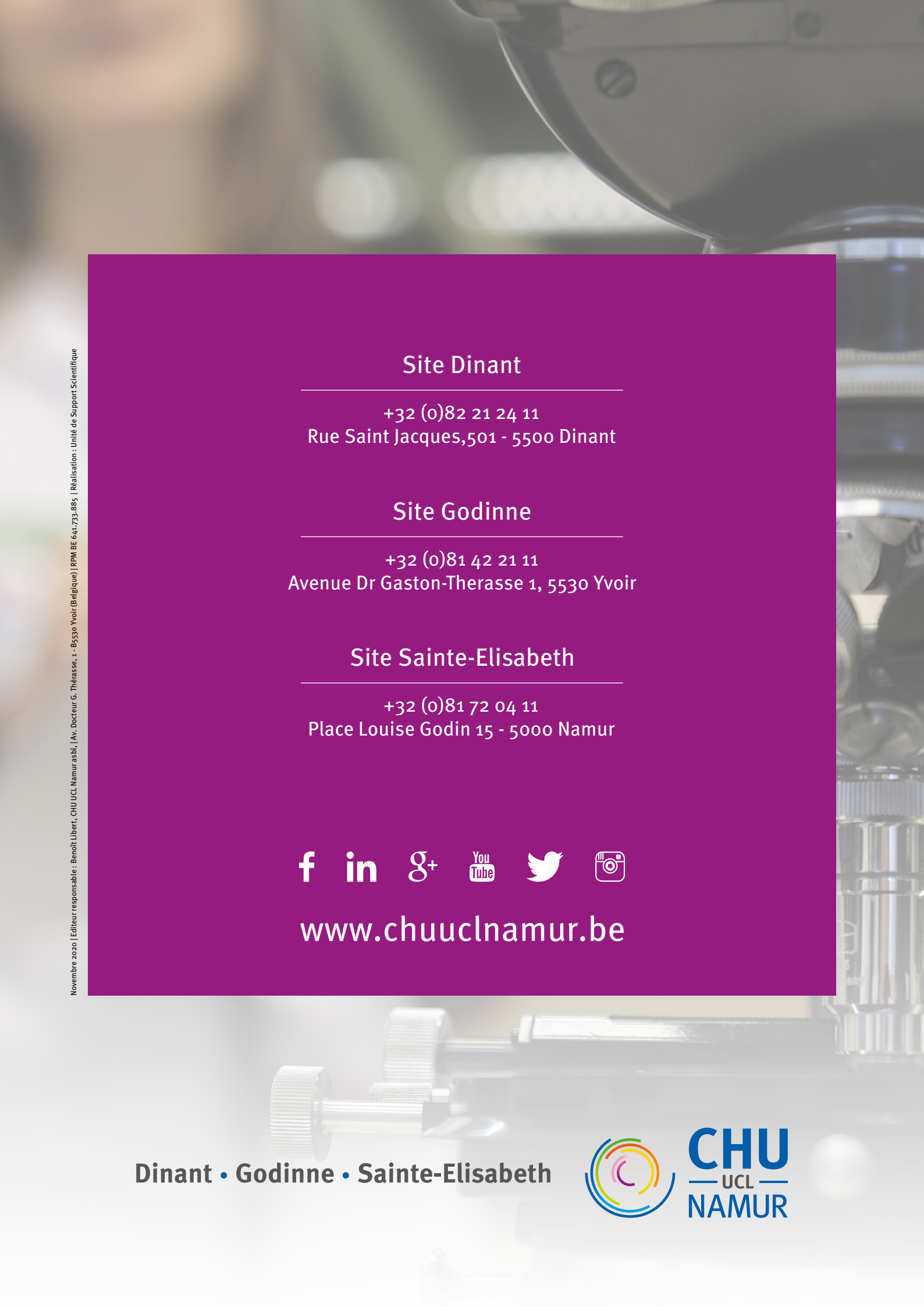
Références	*Doi*	*IF*
Front Microbiol. 2020 Aug 26;11:2063	*10.3389/fmicb.2020.02063*	*4,190*

Abstract

BACKGROUND: Methicillin-resistant Staphylococcus aureus (MRSA) is a common healthcare-associated pathogen that remains a major public health concern. Sequence type 228 (ST228) was first described in Germany and spread to become a successful MRSA clone in several European countries. In 2000, ST228 emerged in Lausanne and has subsequently caused several large outbreaks. Here, we describe the evolutionary history of this clone and identify the genetic changes underlying its expansion in Switzerland.
MATERIALS AND METHODS: We aimed to understand the phylogeographic and demographic dynamics of MRSA ST228/ST111 by sequencing 530 representative isolates of this clone that were collected from 14 European countries between 1997 and 2012.
RESULTS: The phylogenetic analysis revealed distinct lineages of ST228 isolates associated with specific geographic origins. In contrast, isolates of ST111, which is a single locus variant of ST228 sharing the same spa type t041, formed a monophyletic cluster associated with multiple countries. The evidence points to a German origin of the sampled population, with the basal German lineage being characterized by spa type t001. The highly successful Swiss ST228 lineage diverged from this progenitor clone through the loss of the aminoglycoside-streptothricin resistance gene cluster and the gain of mupirocin resistance. This lineage was introduced first in Geneva and was subsequently introduced into Lausanne.
CONCLUSION: Our results reveal the radiation of distinct lineages of MRSA ST228 from a German progenitor, as the clone spread into different European countries. In Switzerland, ST228 was introduced first in Geneva and was subsequently introduced into Lausanne.

Mots-clefs

MRSA; ST228; WGS; epidemiology; genomic epidemiology; phylogeny; phylogeography



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