17E JOURNEE ET PRIX DE LA RECHERCHE CLINIQUE

Vendredi 14 juin 2024
13h30 – 18h00

Centre de l'innovation - HUG

PROGRAMME & ABSTRACT BOOK

Hôpitaux Universitaires Genève | CENTRE DE RECHERCHE CLINIQUE | UNIVERSITÉ DE GENÈVE

BIENVENUE

Cher(e) Collègue,

Nous sommes heureux de vous retrouver pour cette 17me Journée de la recherche clinique.

Notre Journée fait partie du programme des manifestations annuelles de nos institutions : c'est le rendez-vous de l'année qui met en valeur l'activité de recherche des HUG et de la Faculté de médecine de l'Université de Genève par l'intermédiaire des publications soumises.

Parmi les résumés que vous avez soumis, un jury, présidé par le Pr P. Saudan, a choisi les projets qui seront présentés oralement dont celui qui recevra le Prix de la recherche clinique 2024.

Le Prix médecine et genre et le Prix soignant.e seront également remis par leur jury respectif.

Quant aux posters, ils seront soumis à l'évaluation du public pendant la pause-café : c'est vous qui choisirez le meilleur poster et l'équipe lauréate de ce prix !

La première session de présentations sera suivie par la Conférence de le **Pr Niklaus Labhardt**, head of the Department of Clinical Research and a full professor in Clinical Epidemiology at the University of Basel:

"Investigator initiated trials to inform clinical practice:
lessons from a research collaboration in Southern Africa »

Comme chaque année, la distribution des prix et l'annonce des lauréats clôturera cette magnifique journée.

Nous nous réjouissons de vous voir nombreux le 14 juin 2024 !

Professeure Alexandra Calmy Docteure Isabelle Semac

Pour toute information sur la Journée de la recherche clinique :

https://www.hug.ch/crc

corinne.chaudet@hcuge.ch, tél. 022 372 91 34

INFORMATION GENERALE

Qui participe ?

Tous les chercheurs des HUG et de la Faculté de médecine ayant terminé récemment un projet de recherche clinique dont les résultats sont directement applicables aux soins ou aux patients.
40 projets de recherche provenant de services très variés, incluant les travaux des meilleurs mémoires de Master de médecine 2023, ont été soumis pour cette dix-septième édition.

Le jury du Prix de la Recherche Clinique :

Pr Patrick Saudan, Néphrologie (Président)
Pr Alfredo Addeo, Oncologie
Pre Nadia Elia, Anesthésiologie
Pre Valentina Garibotto, Médecine nucléaire et imagerie moléculaire
Mme Elsa Lorthe, Médecine de premier recours
Pre Anne Lübbeke-Wolff, chirurgie orthopédique et traumatologie de l'appareil moteur
Pr Pierre Mégevand, Neurologie
Pr Nader Perroud, Spécialités psychiatriques
Pre Klara Posfay-Barbe, Pédiatrie générale
Pre Dina Zekry, Médecine interne de l'âgé

Le jury a sélectionné les projets de recherche présentés oralement lors de cette Journée et désigné l'équipe de recherche lauréate du Prix de la recherche clinique.

Le Prix de la Recherche Clinique :

Un diplôme ainsi qu'une somme de CHF 1'000.- seront décernés aux auteurs.

Le Prix Médecine et Genre :

Ce prix vise à distinguer les projets de recherche intégrant des dimensions de sexe et genre dans la santé, évalués par un jury composé d'un panel de membres du groupe facultaire Médecine, Genre & Equité. Le-a gagnant-e recevra la somme de 1'000.- francs.

Le Prix Soignant.e :

Ce prix est décerné à une présentation orale par un jury composé de personnes internes et externes aux HUG et à la Faculté de médecine, présidé par le Pr. Sebastian Probst, et recevra la somme de 1'000.- francs.

Le Prix du Meilleur Poster :

Un prix est attribué au meilleur poster assorti d'une somme de CHF 1'000.- francs, décerné par vote du public.

BIOSKETCH DU CONFERENCIER

« Investigator initiated trials to inform clinical practice: lessons from a research collaboration in Southern Africa »

Niklaus Labhardt is the head of the Department of Clinical Research and a full professor in Clinical Epidemiology at the University of Basel.

He is a physician certified in Infectious Diseases, Tropical Medicine, and Internal Medicine. The focus of his research is on pragmatic randomized clinical trials in resource-limited settings that aim at impacting health and health care for underserved populations in Southern Africa.

During his lecture he will share own experience and lessons learnt from randomized trials conducted in Lesotho, Tanzania and Malawi.

PROGRAMME

13h30 Ouverture de la 17ème Journée de la recherche clinique
Pre. Alexandra Calmy, Médecin adjointe agrégée, directrice du Centre de Recherche Clinique et vice-doyenne à la recherche de la Faculté de médecine de l'Université de Genève,

13h45 Présentations orales – Partie I (9 minutes de présentation, suivies de 3 minutes de discussion)
Modératrice : Pre Alexandra Calmy, Vice-doyenne à la recherche de la Faculté de médecine de l'Université de Genève, Directrice du Centre de Recherche Clinique

13h50	A. Gayet-Ageron:	Evidence of Lack of Treatment Efficacy Derived From Statistically Nonsignificant Results of Randomized Clinical Trials
14h02	G. Giudicelli	Global benchmarks in primary robotic bariatric surgery redefine quality standards for Roux-en-Y gastric bypass and sleeve gastrectomy
14h14	G. Mathoux:	A comparison of visual assessment and semi-quantification for the diagnostic and prognostic use of [18F]flortaucipir PET in a memory clinic cohort
14h26	F. Brigatti:	Transcranial Magnetic Stimulation (TMS) brain mapping of the hand motor area: comparison between healthy subjects and patients with cervical myelopathy *Meilleur travail de Master de Médecine 2023 (sous la direction de P. Bijlenga)*
14h38	N. Roehri:	Réseaux fonctionnels de l'EEG haute densité dans l'épilepsie généralisée génétique : La topologie globale préservée dissimule une réorganisation locale

15h00 Conference:
« Investigator initiated trials to inform clinical practice: lessons from a research collaboration in Southern Africa».
Pr Niklaus Labhardt, Head of the Department of Clinical Research, Basel

15h30 – 16h10 Visite des posters et vote du public du meilleur poster
Café et douceurs à disposition - Esplanade IMAD

16h10 Présentations orales – Partie II
Modératrice : Pre. Angèle Gayet-Ageron, médecin adjointe agrégée, responsable de l'unité d'appui méthodologique du Centre de recherche clinique

16h15	J. Siebert:	Outdoor Cold Air Versus Room Temperature Exposure for Croup Symptoms: A Randomized Controlled Trial
16h27	E. Tessitore:	Drinking patterns of alcohol and risk of major adverse cardiovascular events after an acute coronary syndrome
16h39	D. Mongin:	Effect of SARS-CoV-2 prior infection and mRNA vaccination on contagiousness and susceptibility to infection
16h51	E. Dalex:	Expérience de transition vécue par les patients avec une maladie oncologique lors de la pose d'un dispositif d'accès veineux implantable : une recherche exploratoire

17h05 Remise des Prix 2024

- Prix de la Recherche Clinique et du Meilleur Poster : Pr. Patrick Saudan, président du jury
- Prix Médecine et Genre : Pre Angèle Gayet-Ageron coordinatrice du groupe Médecine, Genre & Equité
- Prix Soignant.e : Mme Mélanie Verdon, chargée de recherche et implémentation.

17h25 Clôture de la journée : Pre Alexandra Calmy

17h30 Cocktail

RECUEIL DES RESUMES

PRESENTATIONS ORALES

ORDRE SELON LE PROGRAMME

EVIDENCE OF LACK OF TREATMENT EFFICACY DERIVED FROM STATISTICALLY NONSIGNIFICANT RESULTS OF RANDOMIZED CLINICAL TRIALS

Thomas Perneger, ***Angèle Gayet-Ageron***

Service d'épidémiologie clinique et CRC, HUG -Faculté de médecine

Introduction :
Many randomized clinical trials yield statistically nonsignificant results. Such results are difficult to interpret within the dominant statistical framework. Our objective was to estimate the strength of evidence in favor of the null hypothesis of no effect vs the prespecified effectiveness hypothesis among nonsignificant primary outcome results of randomized clinical trials by application of the likelihood ratio.
Méthode :
We conducted a cross-sectional study of statistically nonsignificant results for primary outcomes of randomized clinical trials published in 6 leading general medical journals in 2021. The primary outcome was the likelihood ratio for the null hypothesis of no effect vs the effectiveness hypothesis stated in the trial protocol (alternate hypothesis). The likelihood ratio quantifies the support that the data provide to one hypothesis vs the other.
Résultats :
In 130 articles that reported 169 statistically nonsignificant results for primary outcomes, 15 results (8.9%) favored the alternate hypothesis (likelihood ratio, <1), and 154 (91.1%) f avored the null hypothesis of no effect (likelihood ratio, >1). For 117 (69.2%), the likelihood ratio exceeded 10; for 88 (52.1%), it exceeded 100; and for 50 (29.6%), it exceeded 1000. Likelihood ratios were only weakly correlated with P values (Spearman r, 0.16; P = .045).
Conclusion :
A large proportion of statistically nonsignificant primary outcome results of randomized clinical trials provided strong support for the hypothesis of no effect vs the alternate hypothesis of clinical efficacy stated a priori. Reporting the likelihood ratio may improve the interpretation of clinical trials, particularly when observed differences in the primary outcome are statistically nonsignificant.

GLOBAL BENCHMARKS IN PRIMARY ROBOTIC BARIATRIC SURGERY REDEFINE QUALITY STANDARDS FOR ROUX-EN-Y GASTRIC BYPASS AND SLEEVE GASTRECTOMY

Giudicelli Guillaume1*, Daniel Gero2 , Lind Romulo3, Vasu Chirumamilla4, Pouya Iranmanesh1,5 , Christopher K. Owen5,Wayne Bauerle6, Amador Garcia7, Lisa Lucas8, Anne-Sophie Mehdorn9,10, Dhananjay Pandey11, Abdullah Almuttawa12,13, Francisco Cabral14, Abhishek Tiwari15, Virginia Lambert16, Beniamino Pascotto17, Celine De Meyere18, Marouan Yahyaoui19,Thomas Haist20, Oliver Scheffel21, Maud Robert19, Frederiek Nuytens18, Santiago Azagra17, Lilian Kow16, Arun Prasad15, Carlos Vaz14, Michel Vix12, Vivek Bindal11, Jan H. Beckmann9,10, David Soussi8, Ramon Vilallonga7, Maher El Chaar6, Erik B. Wilson5, Arif Ahmad4, Andre Teixeira3, Monika E. Hagen1, Christian Toso1 , Pierre-Alain Clavien2, Milo Puhan22, Marco Bueter2,* and Minoa K. Jung1*

1Division of Digestive Surgery, Department of Surgery, Geneva University Hospital and Faculty of Medicine, Geneva,
Following institutions

Introduction :
Whether the benefits of the robotic platform in bariatric surgery translate into superior surgical outcomes remains unclear. The aim of this re trospective study was to establish the ‘best possible’ outcomes for robotic bariatric surgery and compare them with the established laparoscopic benchmarks.
Méthode :
benchmark cut-offs were established for consecutive primary robotic bariatric surgery patients of 17 centres across four continents (13 expert centres and 4 learning phase centres) using the 75th percentile of the median outcome values until 90 days after surgery. The benchmark patients had no previous laparotomy, diabetes, sleep apnoea, cardiopathy, renal insufficiency, inflammatory bowel disease, immunosuppression, history of thromboembolic events, BMI greater than 50 kg/m2, or age greater than 65 years.
Résultats :
9097 patients were included, mainly female (75.5%) who had a mean(s.d.) age of 44.7(11.5) years and a mean(s.d.) baseline BMI of 44.6(7.7) kg/m2. In expert centres, 13.74% of the 3020 patients who underwent primary robotic Roux-en-Y gastric bypass and 5.9% of the 4078 patients who underwent primary robotic sleeve gastrectomy presented with one or more complication within 90 postoperative days. Compared with laparoscopic benchmarks, robotic Roux-en-Y gastric bypass had lower benchmark cut-offs for hospital stay, postoperative bleeding, and marginal ulceration. Robotic sleeve gastrectomy outperformed laparoscopic sleeve gastrectomy for most outcomes.
Conclusion : The newly established benchmarks suggest that robotic bariatric surgery may enhance surgical safety compared with laparoscopic bariatric surgery; however, the duration of the operation for robotic Roux-en-Y gastric bypass is longer.

A COMPARISON OF VISUAL ASSESSMENT AND SEMI-QUANTIFICATION FOR THE DIAGNOSTIC AND PROGNOSTIC USE OF [18F] FLORTAUCIPIR PET IN A MEMORY CLINIC COHORT

***Gregory Mathoux**, Cecilia Boccalini, Debora Peretti, Annachiara Arnone, Federica Ribaldi*
Max Scheffler, Giovanni B. Frisoni, Valentina Garibotto

Service de Médecine Nucléaire, HUG
Laboratory of Neuroimaging and Innovative Molecular Tracers (NIMTlab), University of Geneva
Laboratory of Neuroimaging of Aging (LANVIE), University of Geneva

Introduction :
[18F]Flortaucipir PET is a powerful diagnostic and prognostic tool for Alzheimer's disease (AD). Tau status definition is mainly based in the literature on semi-quantitative measures while in clinical settings visual assessment is usually preferred. We compared visual assessment with established semi-quantitative measures to classify subjects and predict the risk of cognitive decline in a memory clinic population.
Méthode :
We included 245 individuals from the Geneva Memory Clinic who underwent [18F]flortaucipir PET. All scans were blindly evaluated by three independent raters who visually classified the scans according to Braak stages. SUVR values were obtained from a global meta-ROI to define tau positivity, and the Simplified Temporo-Occipital Classification (STOC) was applied to obtain semi-quantitatively stages. The agreement between measures was tested using Cohen's kappa (k). ROC analysis and linear mixed-effects models were applied to test the diagnostic and prognostic values of tau status and stages obtained with the different approaches.
Résultats:
We found good inter-rater reliability in the visual interpretation of tau Braak stages, independently from the rater's expertise ($k>0.68$, $p<0.01$). A good agreement was equally found between visual and SUVR-based classifications for tau status ($k=0.67$, $p<0.01$). All tau-assessment modalities significantly discriminated amyloid-positive MCI and demented subjects from others (AUC>0.80) and amyloid-positive from negative subjects (AUC>0.85). Linear mixed-effect models showed that tau-positive individuals presented a significantly faster cognitive decline than the tau-negative group ($p<0.01$), independently from the classification method.
Conclusion :
Our results show that visual assessment is reliable for defining tau status and stages in a memory clinic population. The high inter-rater reliability, the substantial agreement, and the similar diagnostic and prognostic performance of visual rating and semi-quantitative methods demonstrate that [18F]flortaucipir PET can be robustly assessed visually in clinical practice.

TRANSCRANIAL MAGNETIC STIMULATION (TMS) BRAIN MAPPING OF THE HAND MOTOR AREA : COMPARISON BETWEEN HEALTHY SUBJECTS AND PATIENTS WITH CERVICAL MYELOPATHY

***Francesca Maria Brigatti**, Prof. Philippe Bijlenga, PhD-PD Giannina Rita Iannotti*
Meilleur mémoire de Master de médecine 2023

Hôpitaux Universitaires de Genève (HUG), Neurosurgery, Geneva, Switzerland

Introduction :
many pioneering studies have investigated the effect of laterality on the cortical representation of the hand using TMS with incongruent results. Recently, the interest has shifted mainly to understanding cortical reorganization due to lesions at the central and peripheral level. We investigated: i) the effect of laterality on the cortical representation of the dominant and non-dominant hand by comparing the intensity of stimulation, cortical area, and latencies obtained with TMS ii) and assessing the differences between healthy subjects and patients with cervical myelopathy.
Méthode :
2-groups comparison Patients with cervical myelopathy (MP) vs. Healthy Subjects (HS). TMS mapping were performed in 26 HS and 13 MP. The intensity of stimulation, coordinates and latencies of significant stimulation points obtained by the abductor pollicis brevis et abductor digiti mini stimulation were recorded and analyzed.
Résultats :
no significant difference was found for the three parameters studied between dominant and non- dominant hand within the two populations and by mixing them. By comparing the two populations (MS-vs- AP) we found a 10%, 12% and 51.5% increase in intensity of stimulation, maximal latency and cortical area, respectively in MP, compared with HS. The cortical representation showed a posterior shift in the axial plane for MP versus HS.
Conclusion :
by using TMS, we showed that in patients with cervical myelopathy there is an adaptation of the cortical organization of the hand motor area. This is accompanied by increased stimulation intensities and latencies, and larger cortical areas. These results support the clinical relevance of TMS to characterize possible reorganization at the brain level in patients with chronic spinal cord impairment.

RESEAUX FONCTIONNELS DE L'EEG HAUTE DENSITE DANS L'EPILEPSIE GENERALISEE GENETIQUE : LA TOPOLOGIE GLOBALE PRESERVEE DISSIMULE UNE REORGANISATION LOCALE

André Silva Alves, Isotta Rigoni; Pierre Mégevand; Stanislas Lagarde; Fabienne Picard; Margitta Seeck; Serge Vulliémoz; ***Nicolas Roehri***

Unité d'Exploration de l'Épilepsie et d'EEG, Service de neurologie, HUG

Introduction :
L'épilepsie généralisée génétique (GGE) représente environ 20% des cas d'épilepsie chez les adultes et est considérée comme un trouble de réseaux cérébraux étendus, impliquant les deux hémisphères. La plupart des études n'ont montré aucune différence dans la topologie fonctionnelle globale du réseau cérébral par rapport à des sujets témoins sains. Notre objectif était d'examiner si cette topologie globalement préservée pouvait cacher des réorganisations locales qui s'équilibrent au niveau global du réseau.
Méthode :
Nous avons enregistré des EEG haute densité de 20 patients et 20 témoins, et reconstruit l'activité de 118 régions cérébrales. Nous avons calculé la connectivité fonctionnelle dans des fenêtres exemptes de décharges épileptiformes intericales dans différentes bandes de fréquences, caractérisé la topologie du réseau, et utilisé l'indice de perturbation des régions cruciales (Hub Disruption Index - HDI) pour quantifier la réorganisation topologique. Nous avons examiné si nos résultats étaient généralisables à un système clinique à 25 électrodes.
Résultats :
Alors que la topologie globale du réseau était préservée, l'HDI était significativement différent entre les patients et les témoins dans toutes les bandes de fréquences sauf l'alpha ($p<.01$, corrigé par FDR, $d<-1$), et accompagné d'une augmentation de la connectivité dans les régions préfrontales et le réseau du mode par défaut. Cette réorganisation suggère que les régions importantes dans le transfert de l'information chez les sujets témoins l'étaient moins chez les patients et inversement. Ces résultats ont également été retrouvés lors de l'utilisation de 25 électrodes ($p<.001$, FDR corrigé, $d<-1$).
Conclusion :
Chez les patients atteints de GGE, la topologie globale du réseau est similaire à celle des témoins sains mais présente une réorganisation topologique locale équilibrée. Cette réorganisation entraîne une intégration et une ségrégation accrues des zones préfrontales et du réseau du mode par défaut, ce qui pourrait expliquer l'altération des fonctions exécutives associée au GGE. De plus, la réorganisation distingue les patients des témoins même lors de l'utilisation de 25 électrodes, suggérant son utilisation potentielle comme outil de diagnostic.

OUTDOOR COLD AIR VERSUS ROOM TEMPERATURE EXPOSURE FOR CROUP SYMPTOMS : A RANDOMIZED CONTROLLED TRIAL

***Johan N. Siebert**, Coralie Salomon, Ilaria Taddeo, Alain Gervaix, Christophe Combescure, Laurence Lacroix*

Service d'Accueil et d'Urgences Pédiatriques, HUG

Introduction :
Croup, or acute viral laryngotracheitis, is the most common cause of acute upper airway obstruction in children, accounting for 3%-5% of annual pediatric emergency department visits. Nonpharmacological measures have been mentioned. Mist therapy, once popular, is no longer recommended because no evidence supports its effectiveness. Exposure to cold air is often reported beneficial in daily practice by parents, but documented evidence to support this measure lacks. We investigated whether 30-minute exposure to outdoor, atmospheric, cold air might improve mild to moderate croup symptoms before the onset of action of steroids.
Méthode :
This open-label, single-center, randomized controlled trial, enrolled children aged 3 months to 10 years with croup and a Westley Croup Score (WCS) ≥2 attending a tertiary pediatric emergency department in Switzerland. Participants were randomized (1:1) to either a 30-minute exposure to outdoor cold (<10°C) atmospheric air or to indoor ambient room air immediately after triage and administration of a single-dose oral dexamethasone. The primary endpoint was a decrease in WCS ≥2 points from baseline at 30 minutes. Analyses were intention to treat.
Résultats :
A total of 118 participants were randomly assigned to be exposed to outdoor cold air (n = 59) or indoor room temperature (n = 59). Twenty-nine of 59 children (49.2%) in the outdoor group and 14 of 59 (23.7%) in the indoor group showed a decrease in WCS ≥2 points from baseline at 30 minutes after triage (risk difference 25.4% [95% confidence interval 7.0–43.9], P = .007). Patients with moderate croup benefited the most from the intervention at 30 minutes (risk difference 46.1% [20.6–71.5], P < .001).
Conclusion :
This trial provides a first clinical evidence that a 30-minute exposure to outdoor cold air (<10°C), as an adjunct to oral dexamethasone, is beneficial for reducing the intensity of clinical symptoms in children with croup, especially when moderate. Considering that oral dexamethasone shows a therapeutic effect after a 30 minute-delay, this nonpharmacological additional measure, easy to perform by parents and guardians, could be an initial measure to offer.

DRINKING PATTERNS OF ALCOHOL AND RISK OF MAJOR ADVERSE CARDIOVASCULAR EVENTS AFTER AN ACUTE CORONARY SYNDROME

***Elena Tessitore**, Mattia Branca, Dik Heg, David Nanchen, Reto Auer, Lorenz Räber,Roland Klingenberg, Stephan Windecker, Thomas F. Lüscher, Sebastian Carballo, Christian M. Matter, Gerhard Gmel, Kenneth J.Mukamal, Nicolas Rodondi, David Carballo, François Mach, Baris Gencer*

Service de cardiologie, HUG

Introduction :
In secondary cardiovascular (CV) prevention among survivors of myocardial infarction (MI), no large recent study has investigated the risk of alcohol consumption on CV outcomes, and there are still no clear recommendations on the quantity of alcohol consumption allowed after MI.
To address the association between drinking patterns, including frequency, quantity, and binge drinking, and CV prognosis among patients with established coronary heart disease, we examined data from a cohort study of patients with acute coronary syndrome (ACS) in four Swiss centers.
Méthode :
A total of 6557 patients hospitalized for ACS were followed over 12 months. Weekly alcohol consumption was collected at baseline and 12 months. Binge drinking was defined as consumption of ≥6 units of alcohol on one occasion. Major adverse cardiovascular events (MACE) were defined as a composite of cardiac death, myocardial infarction, stroke, or clinically indicated target vessel coronary revascularization. Cox regression analysis was performed to assess the risk of MACE in patients with respectively heavy, moderate, light consumption, or abstinence, and with binge drinking episodes, adjusted for baseline differences.
Résultats :
At baseline, 817 (13.4%) patients reported heavy weekly alcohol consumption. At 1-year follow-up, 695/1667 (41.6%) patients reported having at least one or more episodes of binge drinking per month. The risk for MACE was not significantly higher in those with heavy weekly consumption compared to abstinence or light consumption. The risk of MACE was dose-dependently higher in those with binge drinking with less than one episode per month (9.2% vs. 7.8%, HR 1.61,95% CI 1.23–2.11), or one or more episodes per month (13.6% vs. 7.8%, HR 2.17,95% CI 1.66-2.83).
Conclusion : Binge drinking behaviour during the year following an acute coronary syndrome, even less than once per month, is associated with worse clinical outcomes. It is not the frequency but rather the quantity of alcohol intake in a binge drinking episode that is associated with worse prognosis in patients after an acute coronary syndrome.

EFFECT OF SARS-COV-2 PRIOR INFECTION AND MRNA VACCINATION ON CONTAGIOUSNESS AND SUSCEPTIBILITY TO INFECTION

Denis Mongin *1, Nils Bürgisser 2, Guillaume Schimmel 3, Diem-Lan Vu 1,3,4,5, Stephane Cullati 6,7, Covid-SMC Study Group, Delphine Sophie Courvoisier 1,6*

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7 Population Health Laboratory (#PopHealthLab), Faculty of Science and Medicine, University of Fribourg, Fribourg, Switzerland

Introduction :
The immunity conferred by SARS-CoV-2 vaccines and infections reduces the transmission of the virus. But to date, no clear picture on how this effect is shared between reduction of infectiousness and an increased protection against infection, and how this two effects evolve in time and are effected by variant changes.
Méthode :
To answer this question, we examined >50,000 positive cases and >110,000 contacts from Geneva, Switzerland (June 2020 to March 2022). We assessed the association between secondary attack rate (i.e. proportion of new cases among contacts) and immunity from natural infection and/or vaccination, stratifying per four SARS-CoV-2 variants and adjusting for index cases and contacts' socio-demographic characteristics and the propensity of the contacts to be tested
Résultats :
Here we show that immunity protected contacts from infection, rather than reducing infectiousness of index cases. Natural infection conferred the strongest immunity. Hybrid immunity did not surpass recent infection. Although of smaller amplitude, the reduction in infectiousness due to vaccination was less affected by time and by the emergence of new SARS-CoV-2 variants than the susceptibility to infection.
Conclusion :
These findings support the role of vaccine in reducing infectiousness and underscore the complementary role of interventions reducing SARS-CoV-2 propagation, such as mask use or indoor ventilation

EXPERIENCE DE TRANSITION VECUE PAR LES PATIENTS AVEC UNE MALADIE ONCOLOGIQUE LORS DE LA POSE D'UN DISPOSITIF D'ACCES VEINEUX IMPLANTABLE : UNE RECHERCHE EXPLORATOIRE

***Dalex Eliane**, Dominique Munteanu Nicou, Florence Roch Barrena, Catherine Salvi et Marie-José Roulin*

Direction des soins, département de chirurgie, Centre des cancers, HUG

Introduction :
A l'annonce d'un diagnostic de cancer ou d'une récidive, les patients vivent une transition de type maladie. La pose d'un dispositif d'accès veineux implantable (DAVI) survient souvent juste après l'annonce ; il est un facteur de perturbation supplémentaire à leur équilibre.
L'objectif a été d'explorer les besoins non comblés et les attentes des patients en interrogeant leur expérience vécue de la pose du DAVI pour proposer des interventions de soins adaptées.
Méthode :
La méthode est un devis exploratoire de nature qualitative utilisant l'analyse déductive. La théorie de la transition de Meleis a été retenue comme matrice de catégorisation. Le projet a été effectué au sein des HUG dans lequel 350 DAVI sont posés par an. Le recrutement a été non probabiliste et à partir d'un échantillonnage par choix raisonné. Les données ont été collectées lors de 12 entretiens individuels semi-dirigés. La personne était invitée à répondre à la question « Comment avez-vous vécu la pose du dispositif d'accès veineux implantable ? ».
Résultats :
Les résultats montrent la vulnérabilité des patients lors de la pose du DAVI. Des conditions entravantes et facilitantes de la transition de nature personnelle, interpersonnelle et organisationnelle influencent la qualité de l'expérience vécue. La gestion de la douleur, l'accompagnement pour les auto-soins, la préparation anticipée avec des informations spécifiques répondant aux questions des patients sont des éléments essentiels pour diminuer l'anxiété et l'insécurité. Différentes stratégies de coping sont utilisées par les patients pour diminuer leur détresse émotionnelle et retrouver un certain équilibre.
Conclusion :
Les professionnels doivent être conscients de la grande fragilité émotionnelle dans laquelle sont ces patients lors de la pose du DAVI proche de l'annonce du diagnostic, qui viennent pour une chirurgie décrite comme simple. Cette période est un moment charnière pour la construction d'une relation confiance importante pendant tout le parcours clinique oncologique. Ce modèle de soin permet de guider les infirmières à une meilleure compréhension de la transition vécue et leur permet d'offrir des soins transitionnels les plus adaptés possibles favorisant une expérience positive de la pose du DAVI.

PRESENTATIONS POSTERS

PAR
ORDRE ALPHABETIQUE SELON
LE NOM DE L'AUTEUR QUI A SOUMIS

P1

PREDICTORS FOR PATHOLOGICAL BONE FRACTURES IN CHILDREN UNDERGOING LIVER TRANSPLANTATION : A RETROSPECTIVE COHORT STUDY

***Damiano Astolfi**, Nathalie Rock, Dimitri Ceroni, Barbara E. Wildhaber*

Centre suisse du foie de l'enfant, Service de chirurgie de l'enfant et de l'adolescent, Service de gastro-entérologie pédiatrique, HUG

Introduction :
Hepatic osteodystrophy refers to bone disorders associated with chronic liver disease, including children undergoing liver transplantation (LT). The aim of this study was to quantify the prevalence of pathological fractures (PF) in children before and after LT and to identify associated factors for their occurrence.
Méthode:
Children aged 0-18 years who underwent LT from 1/2005-12/2020 were included in this retrospect ive study. Data on patient demographics, types and anatomical locations of fracture and biological workups were extracted. Variables were assessed at 3 time points : T-1 at the moment of listing for LT; T0 at the moment of LT and T+1 at 1-year post-LT.
Résultats :
A total of 105 children were included. Median age at LT was 19 months (range 0-203). Twenty-two patients (21%) experienced 65 PF, 11 children before LT, 10 after LT, 1 before and after LT. The following variables were observed as associated with PF: At T-1, low weight and height z-scores, and delayed bone age; at T0, low weight and height z-scores, high total and conjugated bilirubin; at T+1, persistent low height z-score. Patients in the PF-group were significantly more under calcium supplementation and/or nutritional support at T-1, T0 and T+1.
Conclusion :
One of five children needing LT will experience a PF. Patients with low weight and height z-scores and significant delay i n bone age are at increased risk. Nutritional support, as well as calcium substitution and vitamin D supplementation cannot completely counteract the effect of chronic liver disease and cholestasis. Still, is seems of upmost importance to aim for supplementing children waiting for LT with nutritional supplements relevant to bone health and to carefully monitor osteometabolism. In patients with pre-LT PF, corticosteroids should be avoided in the post-LT period, if possible

P2

PERINATAL ARTERIAL ISCHEMIC STROKE : HOW INFORMATIVE IS THE PLACENTA?

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Introduction :
Neuroplacentology is an expanding field of interest that addresses the placental influence on fetal and neonatal brain lesions, and on further neurodevelopment. The objective of this study was to clarify the link between placental pathology and perinatal arterial ischemic stroke (PAIS). Prior publications have reported different types of perinatal stroke with diverse methodologies precluding firm conclusions.
Méthode :
We report here the histological placental findings in a series of 16 neonates with radiologically confirmed PAIS. Findings were grouped into 3 categories of lesions: 1) Inflammation, 2) Placental and fetal hypoxic lesions, and 3) Placentas with a high birthweight/placenta weight ratio. Matched control placentas were compared to the pathological placentas when feasible.
Résultats :
The eight term singleton placentas were compared to a series of 20 placentas from a highly controlled amniotic membrane donation program ; in three twin pregnancies, the placental portions from the affected twin and unaffected co-twin were compared. Slightly more than half (9/16, 56%) had histopathological features belonging to more than one category, a feature shared by the singleton control placentas (13/20, 65%). More severe and extensive lesions were however observed in the pathological placentas. One case occurring in the context of SARS-CoV-2 placentitis further expands the spectrum of Covid-related perinatal disease.
Conclusion :
Our study supports the assumption that PAIS can result from various combinations and interplay of maternal and fetal factors, and confirms the value of placenta examination. Yet, placental findings must be interpreted with caution given their prevalence in well-designed controls.

P3

IMPROVING BUSULFAN THERAPY: STRATEGIES FOR PERSONALIZED DOSING IN ADULT HSCT RECIPIENTS

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Introduction :
The alkylating agent busulfan is frequently used in preparative chemotherapy before hematopoietic stem cell transplantation (HSCT). However, wide pharmacokinetic variability exists among patients following current dosing guidelines. Personalized dosing is essential due to the significant impact of busulfan exposure on HSCT outcomes, yet it is not widely adopted.
Méthode :
This study investigated personalized dosing strategies for busulfan, including preemptive genotyping, patients' obesity status, and therapeutic drug monitoring (TDM), using pharmacokinetic (PK) modeling and simulation. A population pharmacokinetic (PopPK) model, developed and validated with data from 60 adult HSCT recipients (Basec 14-005), explored dosing scenarios considering various body size metrics and GSTA1 promoter genotypes (coding for main busulfan metabolizing enzyme). Physiologically-based pharmacokinetic (PBPK) simulations were employed due to the limited representation of obese patients in our cohort.
Résultats :
Individuals with at least one GSTA1*B haplotype exhibited a 17% reduction in busulfan clearance on average. Adjusting doses based on genotype improved the likelihood of achieving target exposure (AUC0-∞: 3.7 to 5.5 mg.h/L) from 53% to 60% in GSTA1*A homozygotes and from 50% to 61% in *B carriers. Nevertheless, approximately 40% of patients may fall outside the therapeutic window without TDM. The model was integrated into user-friendly software for routine TDM with limited sampling. PBPK simulations recommended body surface area-based doses of 29 to 31 mg/m2/6h regardless of obesity status.
Conclusion :
In conclusion, personalized busulfan dosing in adults is critical for achieving therapeutic exposure, although preemptive genotyping alone may not be adequate, necessitating routine TDM for optimal busulfan exposure and transplantation outcomes.

P4
LONG COVID'S BIG PROBLEM: UNRAVELING THE IMPACT OF SMALL FIBER NEUROPATHY

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Introduction :
Facing the growing number of patients suffering from pain associated with dysautonomic symptoms following severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) infection, we aimed to estimate the prevalence of small fiber neuropathy (SFN) in a cohort of long coronavirus disease 19 (COVID-19) patients reporting new-onset nociceptive symptoms. Furthermore, we intended to determine the diagnostic yield of the non-invasive complementary exams in relation to epidermal fiber nerve density by punch skin biopsy, currently considered the gold standard.
Méthode:
The cohort included 18 patients suffering from symptoms suggestive of SFN (Neuropathic pain score DN4 ⩾ 4) appearing after or during SARS-CoV-2 infection and lasting ⩾90 days. Patients underwent SFN evaluation by skin biopsy, quantitative sensory testing (QST), laser evoked potential (LEP) recording and Electrochemical skin conductance (ESC; Sudoscan).
Résultats :
Out of 17 patients (mean age 44 SD+/-9, female 94%), 14 (i.e., 82%) had abnormal skin biopsy results. One patient withdrew consent before data collection. QST showed the highest sensibility (79%) and specificity (67%), followed by LEP (sensibility 71%, specificity 67%). ESC showed poor reliability in the screening of SFN with a sensibility of 7% and specificity of 50%.
Conclusion :
Neuropathic pain appearing after SARS-CoV-2 infection might be associated with SFN. Non-invasive exams including QST, LEP and Sudoscan, are complementary to the biopsy in the diagnostic process of SFN. Both QST and LEP have high sensibility, making them useful for screening. QST, LEP and Sudoscan present with a high specificity that make them a useful, non-invasive, tool in the confirmation of SFN.

P5

EVALUATION DE LA FRAGILITE CLINIQUE PAR DES AMBULANCIERS AVEC L'ECHELLE DE FRAGILITE CLINIQUE - UNE ETUDE DE FIABILITE INTER-EVALUATEUR ET DE PRECISION

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Introduction :
L'évaluation de la fragilité clinique par les ambulanciers est un domaine sous étudié. Le but de cette étude était d'évaluer la fiabilité inter-évaluateur et la précision de l'évaluation de la fragilité clinique avec l'échelle de fragilité clinique (Clinical Frailty Scale, CFS) par des ambulanciers.
Méthode :
Il s'agit d'une étude transversale avec des ambulanciers exposés à 30 vignettes cliniques, développées sur des situations de la vie quotidienne. Il n'y avait pas de formation spécifique, mais les ambulanciers avaient à disposition la version français de la CFS (pictogrammes et définitions). L'issue primaire était la fiabilité inter évaluateur de l'évaluation et l'issue secondaire la précision, comparée à l'évaluation d'experts. La fiabilité était définie en utilisant un coefficient de corrélation intra-classe (ICC). La précision était évaluée par un modèle de régression logistique à effets mixtes.
Résultats :
Un total de 56 ambulanciers ont complété l'étude. L'évaluation globale avait une bonne fiabilité (IICC=0.87 [95%CI 0.81–0.93]). La précision globale était modérée à 60.6% (95%CI 54.9–66.1), mais nettement plus élevée (94.8% [95%CI 92.0–96.7]) quand une évaluation proche (1 niveau) était considérée comme correcte.
Conclusion :
L'évaluation de la fragilité par des ambulanciers était fiable dans cette étude basée sur des vignettes cliniques. Cependant, la précision clinique doit être améliorée. Dans le futur, la recherche doit s'intéresser à la fiabilité en situation clinique, l'effet de la formation sur les performances et l'association entre le niveau de fragilité évaluée par les ambulanciers et le devenir clinique des patients.

P6

MATERNAL SINGING SUSTAINS PRETERM HOSPITALIZED NEWBORNS' AUTONOMIC NERVOUS SYSTEM MATURATION: AN RCT

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Introduction :
Premature birth is known to affect the newborn's autonomic nervous system (ANS) maturation, with potential short and long-term impact on their neurobehavioral development. The variability of the heart rate is suggested as an important, and non-invasive, instrument for assessing the ANS functioning and development in the neonatal period. The purpose of the study was to investigate the effects of maternal directed singing and speaking on the preterm infants' autonomic nervous system (ANS) maturation as measured by the heart rate variability (HRV) parameters.
Méthode :
In this multi-center randomized clinical trial, 30 stable preterm infants (m = 29,6 weeks of gestational age), without any abnormalities were randomized into an intervention (16) or a control group (14). HRV was measured weekly, for a total of 80 recordings during hospitalization, as well as before and after each session of singing or speaking. The main aim of the study was to measure the infant's HRV in the different sessions of the interventions and control period.
Résultats:
The inter-group analysis demonstrated that the modulation in vagal activity observed during the experimental protocol sessions in the intervention group was statistically different from the vagal modulation recorded in the control group. The intervention group showed a significant increase of the percentage value of HRV power in the high frequency range when compared to the control group ($p = 0.044$). More specifically, the maternal singing significantly increased the high frequency power and decreased the low/high frequency power ratio ($p = 0.037$).
Conclusion :
Infant-directed singing modulates the newborns HRV, both as an immediate and as a cumulative effect, sustaining the ANS development in premature infants. The early maturation of the ANS and an activation of the parasympathetic system, compro- mised by the preterm birth, can allow in the long-term an earlier establishment of caring interactions and emotional connections between preterms and their parents, which in turn may have long- term benefits on the preterm infant's development.

P7

PEOPLE LIVING WITH HIV DISPLAY INCREASED ANTI-APOLIPOPROTEIN A1 AUTOANTIBODIES, INFLAMMATION AND KYNURENINE METABOLITES: A CASE-CONTROL STUDY

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Introduction :
To study the relationship between autoantibodies against apolipoprotein A1 (anti-apoA1 IgG), human immunodeficiency virus (HIV) infection, antiretroviral therapy (ART), and the tryptophan pathways in HIV-related cardiovascular disease. This case-control study conducted in South Africa consisted of control volunteers (n=50), people living with HIV (PLWH) on ART (n=50), and untreated PLWH (n=44). Cardiovascular risk score, vascular measures, and an extensive biochemical characterization (routine, metabolomic and inflammatory systemic profiles) were recorded.
Méthode :
Anti-apoA1 IgG levels were assessed by in-house ELISA. Inflammatory biomarkers were measured with the Meso Scale Discovery® platform kynurenine pathway metabolites measured using targeted metabolomic profiling performed by LC-MRM/MS.
Résultats :
Cardiovascular risk and vascular measures were similar, while important differences in systemic inflammatory and tryptophan pathways were observed between the 3 groups. Anti-apoA1 IgG seropositivity was 15%, 40% and 70% in control volunteers, PLWH-ART experienced and PLWH-ART naïve groups, respectively. Circulating anti-apoA1 IgG were significantly negatively associated with CD4+ counts and positively associated with viremia and pro-inflammatory biomarkers (IFNɣ, TNFα, MIPα, ICAM-1, VCAM-1). While circulating anti-apoA1 IgG were associated with increased levels of kynurenine in both control volunteers and PLWH, the kynurenine/tryptophan ratio was significantly increased in PLWH ART-treated.
Conclusion :
HIV infection increases the humoral response against apoA1 which is associated with established HIV severity criteria and kynurenine pathway activation.

P8

CHATGPT IN GLIOMA ADJUVANT THERAPY DECISION MAKING : READY TO ASSUME THE ROLE OF A DOCTOR IN THE TUMOUR BOARD?

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Introduction
To evaluated ChatGPT performance in recommendations for glioma management by a panel of CNS tumour experts in the context of a tumour board.
Méthode :
We randomly selected 10 patients with CNS gliomas discussed at our institution's Tumour Board. Patients' clinical status, surgical outcome, textual imaging information, and immuno-pathology results were provided to ChatGPT v3.5 and seven CNS tumour experts. The chatbot was asked to give the adjuvant treatment choice, and the regimen while considering the patient's functional status. The experts rated the AI-based recommendations from 0 (complete disagreement) to 10 (complete agreement). An intraclass correlation agreement (ICC) was used to measure the inter-rater agreement.
Résultats :
Eight patients (80%) met the criteria for glioblastoma and two (20%) were low-grade gliomas. The experts rated the quality of ChatGPT recommendations as poor for diagnosis (median 3, IQR 1-7.8, ICC 0.9, 95% CI 0.7-1.0), good for treatment recommendation (7, IQR 6-8, ICC 0.8, 95% CI 0.4-0.9), good for therapy regimen (7, IQR 4-8, ICC 0.8, 95% CI 0.5-0.9), moderate for functional status consideration (6, IQR 1-7, ICC 0.7, 95% CI 0.3-0.9), and moderate for overall agreement with the recommendations (5, IQR 3-7, ICC 0.7, 95% CI 0.3-0.9).
Conclusion :
ChatGPT performed poorly in classifying glioma types but was good for adjuvant treatment recommendations as evaluated by CNS Tumour Board experts. Even though the ChatGPT lacks the precision to replace expert opinion, it may become a promising supplemental tool within a human-in-the-loop approach.

P9

VARIABILITY OF 24-HOUR SODIUM URINARY EXCRETION IN YOUNG HEALTHYMALES BASED ON CONSECUTIVE URINE COLLECTIONS : IMPACT ON CATEGORIZATION OF SALT INTAKE

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Introduction :
Several nonconsecutive 24-h urinary collections are considered the gold standard for estimating dietary salt intake. As those samples are logistically demanding, we aimed to describe the variability of 24-h sodium urinary excretion over consecutive days and report its adequacy with sodium intake.
Méthode :
We enrolled 16 healthy male volunteers in a prospective controlled study. All participants randomly received a low salt diet (LSD) (3 g/day of NaCl), a normal salt diet (NSD) (6 g/day of NaCl), and a high salt diet (HSD) (15 g/day of NaCl) for 7 days in a crossover design without wash-out period.
Résultats :
When considering days 4-6, sodium urinary excretion was in steady state as models with and without interaction term ‘‘diet type X sample day’’ were not significantly different. On day 6, area under the curve (AUC) of ROC for urinary sodium excretion to detect HSD was 1.0 (1.0-1.0) and a cut-point of 175 mmol/day was 100% sensitive and specific to detect HSD. On day 6, receiver operating characteristic AUC to detect LSD was 0.993 (0.978-1.0) and a cut-point of 53 mmol/day was 96.4% sensitive and 100% specific to detect LSD.
Conclusion :
A steady state of sodium balance, where sodium intake is proportional to its excretion, is reached within a few days under a constant diet in the real-life setting. Categorization of salt consumption into low (3 g/day), normal (6 g/day), or high (15 g/day) based on a single 24-h urine collection is nearly perfect. Based on these results, repeated nonconsecutive urine collection might prove unnecessary to estimate sodium intake in daily clinical practice provided that diet is rather constant over time.

P10

IMPLANTATION ET REIMPLANTATION D'ELECTRODES D'EEG INTRACRANIEN CHEZ LES PATIENTS CANDIDATS A UNE CHIRURGIE DE L'EPILEPSIE

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Introduction :
Chez les patients souffrant d'épilepsie pharmaco-résistante qui sont candidats à un traitement chirurgical, l'EEG intracrânien (EEGi) est parfois nécessaire pour préciser l'hypothèse concernant la localisation et l'étendue de la zone épileptogène. Chez une petite proportion de ces patients, l'EEGi ne parvient pas à identifier la zone de départ des crises. Dans de tels cas, il pourrait être utile d'implanter des électrodes d'EEGi supplémen taires. Les conséquences d'une telle stratégie pour les patients, en termes de risque de complications et de chances de succès de la chirurgie de l'épilepsie, sont mal connues.
Méthode :
Nous avons identifié 12 patients chez qui l'implantation initiale n'avait pas permis de délimiter la zone de départ des crises, et qui avaient subi l'implantation d'électrodes additionnelles durant le même séjour hospitalier. Nous avons apparié ces cas à des patients témoins, qui n'avaient subi qu'une seule implantation d'électrodes d'EEGi. Nous avons comparé la fréquence de survenue des complications (infections et hémorragies intracrâniennes) entre cas et témoins. Nous avons quantifié le contrôle post-opératoire de l'épilepsie au moyen de l'échelle ILAE, allant de 1 (absence de crise) à 6 (aggravation des crises).
Résultats :
Sept cas et huit témoins sont allés jusqu'à une chirurgie résective de l'épilepsie. Aucune infection intracrânienne n'a été rapportée. Un témoin a subi une hémorragie intracrânienne. Trois cas et deux témoins ont subi un déficit neurologique ou neuropsychologique post-opératoire. Nous n'avons pas trouvé de différence entre les cas et les témoins en termes de contrôle des crises. Par référence à un score ILAE de 5 (pas de changement des crises), qui aurait prévalu sans chirurgie de l'épilepsie, les cas ont montré une amélioration significative du contrôle des crises.
Conclusion :
La réimplantation d'électrodes d'EEGi peut offrir la possibilité d'une chirurgie résective de l'épilepsie aux patients chez qui l'implantation initiale n'a pas permis de circonscrire la zone épileptogène, sans augmenter significativement le risque de complications ni diminuer les chances de succès de l'opération.

P11
ACUTE TNFA LEVELS PREDICT COGNITIVE IMPAIRMENT 6–9 MONTHS AFTER COVID-19 INFECTION

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Introduction :
A neurocognitive phenotype of post-COVID-19 infection has recently been described that is characterized by a lack of awareness of memory impairment (i.e., anosognosia), altered functional connectivity in the brain's default mode and limbic networks, and an elevated monocyte count. However, the relationship between these cognitive and brain functional connectivity alterations in the ch ronic phase with the level of cytokines during the acute phase has yet to be identified. We determine whether acute cytokine type and levels is associated with anosognosia and functional patterns of brain connectivity 6–9 months after infection.
Méthode :
We analyzed the predictive value of the concentration of acute cytokines (IL-1RA, IL-1β, IL-6, IL-8, IFNγ, G-CSF, GM-CSF) (cytokine panel by multiplex immunoassay) in the plasma of 39 patients (mean age 59 yrs, 38–78) in relation to their anosognosia scores for memory deficits via stepwise linear regression. Then, associations between the different cytokines and brain functional connectivity patterns were analyzed by MRI and multivariate partial least squares correlations for the whole group.
Résultats :
Stepwise regression modeling allowed us to show that acute TNFα levels predicted ($R^2 = 0.145$; $\beta = -0.38$; $p = .017$) and were associated ($r = -0.587$; $p < .001$) with scores of anosognosia for memory deficits observed 6–9 months post-infection. Finally, high TNFα levels were associated with hippocampal, temporal pole, accumbens nucleus, amygdala, and cerebellum connectivity.
Conclusion :
Increased plasma TNFα levels in the acute phase of COVID-19 predict the presence of long-term anosognosia scores and changes in limbic system functional connectivity.

P12
QUALITE DE VIE DES PERSONNES AVEC CANCER RECEVANT DES NOUVEAUX TRAITEMENTS ADJUVANTS.

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Introduction :
La situation adjuvante en oncologie est unique dans le sens que les personnes n'ont plus de cancer actif détectable. L'objectif pour le traitement adjuvant est de prévenir, chez une proportion d'entre eux (souvent une minorité) une récidive et d'augmenter le nombre de personnes guéries à long terme. Quelle est la qualité de vie pour les personnes recevant un traitement adjuvant, notamment des traitements novateurs et récemment approuvés. Est-ce que les seuils, validés en situation de cancers avancés, sont cliniquement pertinents en situation adjuvante ?
Méthode :
Nous avons réalisé une identification systématique des traitements anti-cancer utilisés dans la situation adjuvante et approuvés dans cette indication par la Food and Drug Administration (FDA) aux Etats-Unis entre Janvier 2018 et Mars 2022. Nous avons ensuite réalisé une analyse qualitative des données de qualité de vie et une méta-analyse de ces résultats.
Résultats :
Sur 224 approbations, 12 études ont été inclues. Le bras contrôle consistait en un placebo dans 10 sur 12 études. Sur ces 12 études, 10 (83 %) o nt rapporté des résultats de qualité de vie. Parmi elles, un risque de biais modéré a été détecté dans 3 études (30 %) et un risque de biais élevé dans 6 études (60 %). Aucune étude n'a détecté une différence significative de la qualité de vie. La méta-analyse montrait un effet délétère de l'intervention sur la qualité de vie, toutefois statistiquement non significative.
Conclusion :
Nous avons identifié 12 études ayant conduit à une mise sur le marché par la FDA d'un médicament en situation adjuvante entre 2018 et 2022. Un risque de biais de modéré à sévère a été détecté dans 90% des 10 études ayant rapporté un résultat de qualité de vie. Notre méta-analyse suggère un effet délétère du bras expérimental (intervention) sur la qualité de vie, questionnant le seuil de significativité, dans le contexte adjuvant, de seuils qui ont été validés essentiellement dans le contexte de maladie avancées ou métastatiques.

P13

SERUM LEVEL OF CYTOKERATIN 18 (M65) AS A PROGNOSTIC MARKER OF HIGH CARDIOVASCULAR DISEASE RISK IN INDIVIDUALS WITH NON-ALCOHOLIC FATTY LIVER DISEASE

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Introduction :
Alterations in apoptosis, as reflected by circulating Cytokeratin 18 (CK18), are involved
in the progression of non-alcoholic fatty liver disease (NAFLD) to non-alcoholic steatohepatitis and
atherogenesis. We aimed to explore the discriminant accuracy of Cytokeratin 18 (CK18, including
M65 and M30 forms) for an elevated fatty liver index (FLI) as a validated proxy of NAFLD, and
cardiovascular disease (CVD) risk in the general population.
Méthode :
Both serum CK18 forms were measured using a commercial immunoassay in randomly selected samples from 312 participants of the PREVEND general population cohort. FLI 60 was used to indicate NAFLD. Framingham Risk Score (FRS) and the SCORE2 were used to estimate the 10-year risk of CVD. The Receiver Operating Characteristic (ROC) curve, linear/logistic regression models, and Spearman's correlations were used.
Résultats:
Intricate associations were found between CK18, FLI, and CVD risk scores. While M30 was the only independent predictor of FLI 60, M65 best discriminated NAFLD individuals at very-high 10-year CVD risk according to SCORE2 (AUC: 0.71; p = 0.001). Values above the predefined manufacturer cutoff (400 U/L) were associated with an independent 5-fold increased risk (adjusted odds ratio : 5.44, p = 0.01), with a negative predictive value of 93%.
Conclusion
Confirming that NAFLD is associated with an increased CVD risk, our results in a European general population-based cohort suggest that CK18 M65 may represent a candidate biomarker to identify NAFLD individuals at low CVD risk.

P14 NON AFFICHE

REVIE⊕: IMPACT OF A RESOURCE-BASED LIFE REVIEW INTERVENTION ON PATIENTS WITH ADVANCED CANCER: A WAITLIST CONTROLLED TRIAL

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Introduction :
Life review interventions aim to support individuals facing an incurable disease accompanied by existential concerns and health-related challenges. Based on encouraging feasibility results, this study assessed the effects of Revie ⊕ life review intervention on the self-esteem of patients with advanced cancer, and the effects on well-being, post-traumatic growth, life satisfaction, symptom burden and interaction with nurse
Méthode :
The study consisted of a two-arm parallel-group, waitlist-controlled trial (WCT) in the oncology division of a Swiss-French University Hospital. Revie ⊕ was composed of nurse-led meeting with the patient to address and document significant life events using a strengths-focused approach and targeting the life project.
Résultats :
Due to Covid-19 pandemic, adjustments were made regarding study duration and participant's allocation: Fifty-eight patients received Revie ⊕, 39 completed all the measurements. Self-esteem was high at baseline and maintained stability over time. The social well-being decreased in the intervention group before-after Revie⊕ (1.7 (3.9), p = 0.044) while emotional and functional well-being showed stability. The intensity of symptoms decreased in the intervention group before-after Revie ⊕: 4.9 (9.4), p = 0.020
Conclusion:
This study suggests that patients living with an advanced cancer and who received Revie ⊕ intervention may have maintained their self-esteem high over time. Observed results are promising, particularly considering the influence of the pandemic. Nevertheless, these findings do not allow us to draw definitive conclusions regarding the efficacy of the intervention on self-esteem. WCT seems not to be the appropriate design to highlight the added value of Revie ⊕ for this particularly vulnerable population.

P15

AN OPTIMIZED METHOD TO CULTURE HUMAN PRIMARY LUNG TUMOR CEL L SPHEROIDS

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Introduction :
Lung cancer is the leading cause of cancer mortality. Traditional treatments are not always effective or appropriate due to the heterogeneity of lung cancer across patients. To address this challenge, our research introduces an approach to develop patient-derived spheroids (PDS) that are cultivated using cells from patient tumors and adjacent healthy tissue. By introducing a patient-specific platform to test drug sensitivity, our study holds the potential to enhance the efficacy of lung cancer treatments, paving the way for individualized and more effective lung cancer therapies in the future.
Méthode :
Surgically resected lung specimens were used to generate spheroids using a two-step culture procedure. Flow cytometry and immune staining enabled the characterization of different cell populations resulting from the lung samples. PDS phenotype, cell proliferation and apoptosis were evaluated. Differential gene expr ession between tumor and adjacent normal tissue was analyzed by via RT-qPCR. PDS drug sensitivity was assessed using a cell metabolic assay in response to two chemotherapeutic drug combinations.
Résultats:
Twenty-one patients with non-small-cell lung cancers were included in this study. Through a meticulous process of expansion and selection, patient-derived spheroids (PDS) were successfully established for 15 patients. These PDS maintained the expression patterns of subtype-specific markers. The genomic analysis of PDS established from six patients suggested that 50% of the spheroids maintained a tumoral phenotype. In just fifteen to twenty days, these PDS– now robust and fully characterized – were used to evaluate the effectiveness of two chemotherapeutic combinations recommended by the oncologist.
Conclusion :
Our PDS model represents a promising tool for screening new anti-cancer drugs and identifying personalized therapies. PDS es tablishment from non-malignant adjacent lung tissues can be utilized to estimate drug toxicity on normal lung cells. In the future, we plan to conduct a clinical study in close collaboration with oncologists, where PDS will be established from biopsy specimens of lung carcinoma patients selected for therapy. The tumor sensitivity to prescribed anti-cancer treatments will be assessed using PDS and the results will be compared to the response of the tumor in situ.

P16
CROSS-SECTIONAL AND CORRELATIONAL EXAMINATION OF PATIENTS' PREOPERATIVE ANXIETY, INFORMATION NEED, AND HEALTH LITERACY IN A PRESURGICAL CONSULTATION

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Introduction :
Preoperative anxiety, information needs, and health literacy influence perioperative outcomes. By knowin g these patient dimensions, one can tailor individualized nursing interventions to improve patients' surgical experience. This study elucidates the preoperative anxiety, information need, and health literacy levels of an elective preoperative sample in Switzerland and examines the possible associations between preoperative anxiety and the patients' characteristics.
Méthode :
In this cross-sectional and correlational study, 88 patients who underwent a preoperative consultation at a Swiss tertiary hospital participated. Patients' preoperative anxiety and information needs were assessed using the Anxiety Preoperative and Information Scale, and their health literacy was measured using the Functional, Communicative and Critical Health Literacy Scale. Data on other patient characteristics were collected from the patients, physicians, and electronic patient records. Association tests, as well as univariate regressions, were performed on preoperative anxiety, in formation needs, health literacy, and patient characteristics.
Résultats :
Among participants, 40.91%, 78.41%, and 59% reported having preoperative anxiety, information need, and low health literacy, respectively. Finally, preoperative anxiety was associated with information need, health literacy, solitary living, and American Society of Anesthesiology score.
Conclusion :
A high proportion of patients scheduled for presurgical consultation were found to be anxious. They presented high information need and low health literacy. An examination of patients' preoperative anxiety–associated characteristics can help improve their surgical experience. More studies should examine preoperative anxiety–associated characteristics.

P17

APIXABAN AND RIVAROXABAN'S PHYSIOLOGICALLY- BASED PHARMACOKINETIC MODEL VALIDATION IN HOSPITALIZED PATIENTS : A FIRST STEP FOR LARGER USE OF A PRIORI MODELING APPROACH AT BED SIDE

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Introduction :
When used in real- world conditions, substantial interindividual variations in di-rect oral anticoagulant (DOAC) plasma concentrations are observed for a given dose, leading to a risk of over- or under- exposure and clinically significant ad-verse events. Physiologically- based pharmacokinetic (PBPK) models could help physicians to ta ilor DOAC prescriptions in vulnerable patient populations, such as those in the hospital setting. The present study aims to validate prospectively PBPK models for rivaroxaban and apixaban in a large cohort of elderly, polymorbid, and hospitalized patients.

Méthode :
The absorption, distribution, metabolism, and excretion (ADME) simulator SimCYP version 21 software (Certara, SimCYP Ltd.) was used as the platform for PBPK simulation. A model of geriatric population integrating appropriate physiological parameters into models first optimized with healthy volunteer data, was developped and verified with observed plasma concentration collected prospectively in hospitalized patients on apixaban (n= 100) and rivaroxaban (n= 100).

Résultats :
Observed plasma concentration collected in hospitalized patients on apixaban (n= 100) and rivaroxaban (n= 100) were adequately predicted (ratio predicted/observed a rea under the concentration curve for a dosing interval [AUCtau] = 0.97 [0.96– 0.99] geometric mean, 90% confidence in-terval, ratio predicted/observed AUCtau= 1.03 [1.02– 1.05]) for apixaban and rivaroxaban, respectively. Patients with venous thrombo-embolism (VTE) on rivaroxaban 15 mg b.i.d. were predicted better with a model built with a healthy volunteer population.

Conclusion :
This study represents a proof- of-concept of the use and validation of PBPK models associated to specific physiological parameters of geriatric populations in real- life hospital settings. The present study serves as a basis for future apixaban's, and rivaroxaban's PK studies based on PBPK models in real- life setting and strengthen the role of PBPK in model-informed precision dosing. The next step is to validate a more individualized approach using virtual twin PBPK modeling on a large scale and in integrating individual parameters, incl uding demographics, physio-logical factors, and CYP450 phenotypic activities.

P18
FERTILITY AND PREGNANCY OUTCOMES AFTER CERVICAL INTRAEPITHELIAL NEOPLASIA TREATMENT BY THERMAL ABLATION : A COHORT STUDY (TACCARE)

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Introduction :
The World Health Organization recommends thermal ablation (TA) as an alternative to cryotherapy for the treatment of women screened positive for cervical cancer. While TA is well tolerated and effective for the treatment of cervical intraepithelial neoplasia, its potential impact on fertility has not yet been studied. Our objective was to assess the impact of TA on fertility and obstetrical outcomes among women screened for cervical cancer in the West Region of Cameroon.
Méthode :
This retrospective cohort study included participants 30-49 years from two screening trials in Cameroon conducted between 2015 and 2020. Participants were primarily screened for human papillomavirus (HPV) infection, triaged by visual inspection and treated by thermal ablation if needed. Between October 2021 and March 2022, phone interviews were conducted with participants treated by thermal ablation and a control group of untreated HPV-positive and HPV-negative women. The outcomes were pregnancy and miscarriage after screening/treatment. Associations were assessed using Cox and logistic regression models.
Résultats :
A total of 763 participants (221 treated and 542 untreated) completed the survey, with a mean follow-up time of 1297 days. Sixty-two women (28.1%) treated by TA reported a pregnancy post-screening versus 165 (30.4%) in the control group (p=0.513). The adjusted hazard ratio of pregnancy for treated compared to untreated women was 0.82 (0.54-1.24, p=0.345). Among pregnancies with a known outcome, 18 (35.3%) treated participants had a miscarriage versus 31 (21.4%) in the control group (p=0.048). In the adjusted model, no association remained between TA and miscarriage (1.04, 0.39-2.78, p=0.935)
Conclusion :
In our study population, TA did not significantly impact fertility nor miscarriage risk. Our results support the widespread use of TA as a treatment of choice for precancerous cervical lesions in low-income settings.