Sessions scientifiques I et II vendredi (a.m.), le 9 novembre 2012

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Session scientifique 1

Concours des résidents et fellows

Objectifs éducatifs : À la fin de cette session, le participant connaîtra les nouveaux développements en recherche clinique et fondamentale. Il pourra apprécier les travaux de recherche des résidents et fellows en urologie.
Modérateurs : Elie Antebi et Yves Caumartin

8 h 00 - 8 h 10
Mot de bienvenue

Steven P. Lapointe

8 h 10 - 8 h 19
Impact of Body Mass Index (BMI) on outcomes of patients with upper and lower urinary tract cancers treated by radical surgery: Results from a Canadian multicentre collaboration

Bassel G. Bachir;[*] Armen G. Aprikian;[*] Jonathan I. Izawa;[†] Joseph L. Chin;[†] Yves Fradet;[‡] Adrian Fairey;[±] Eric Estey;[±] Niels Jacobsen;[±] Ricardo Rendon;[¥] Ilias Cagiannos;[§] Louis Lacombe;[‡] Simon Tanguay;[*] Jean-Baptiste Lattouf;[**] Anil Kapoor;[††] Edward Matsumoto;[††] Fred Saad;[**] David Bell;[¥] Peter C. Black;[‡‡] Alan I. So;[‡‡] Darrel Drachenberg;[±±] Wassim Kassouf[*]
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Introduction: To evaluate the effect of body mass index (BMI) on outcomes after radical cystectomy (RC) and radical nephroureterectomy with bladder cuff excision (RNU) in a contemporary group of patients from a Canadian multicenter collaboration.
Methods: Data was collected from eight participating Canadian centres on patients who had undergone RC or RNU from 1998 to 2008. Patients without BMI data were excluded from analysis. Various clinico-pathologic parameters among the three subsets of patients (BMI <25 kg/m^2, 25-30 kg/m^2, >30 kg/m^2) were analyzed. Kaplan-Meier method was used to determine any difference in overall (OS), disease-specific (DSS), and recurrence-free survival (RFS) across the three distinctive weight classes. Multivariate analyses models were also constructed to assess the impact of BMI on survival.
Results: Data on BMI were available on 847 patients who had undergone RC as well as 664 patients who had undergone RNU. There was no difference in histology, pathologic stage, grade and margin status among the three subsets of patients undergoing either type of surgery. However, RC patients with lower BMIs (<25 kg/m^2) were significantly older, had more nodal metastasis and trended towards higher pathological stage while RNU patients with lower BMIs (<25 kg/m^2) were significantly older and received less adjuvant chemotherapy compared to those with BMI >30 kg/m^2. After adjusting for different variables on multivariate analysis, BMI was not an independent prognostic factor for OS and DSS in both surgical groups. Although BMI >30 kg/m^2 was not associated with worse RFS in the RC group, it was associated with worse RFS in the RNU group.
Conclusion: Increased BMI does not seem to influence survival in patients undergoing RC. BMI >30 kg/m^2 is associated with worse RFS in patients undergoing RNU.

8 h 19 - 8 h 28
A prospective study using a new bulking agent for the treatment of pediatric vesicoureteral reflux: Bulkamid

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Introduction: Vesicoureteral reflux (VUR) is a prevalent disease in the pediatric population and the use of endoscopic treatment has become the first line of therapy, especially for low grade reflux. Commercially available products offer short term good success rate but their price are becoming an issue. Our objective was to evaluate the success of endoscopic treatment for VUR in children using (hydrogel cross-linked synthetic polymer bulking agent) (Bulkamid®), which is actually approved for periurethral injection. It has been documented to maintain its volume a long time after the injection.
Methods: We performed a single center, single surgeon prospective off-label study using Bulkamid®; an hydrogel agent consisting of 97,5% water and 2.5% cross-linked synthetic polymer presented in a 1.0 ml syringe, to treat VUR. All patients underwent endoscopic subureteral double HIT technique injection. Every patient had a 3-month postoperative ultrasound and voiding cystourethrogram (VCUG) to confirm the absence of *de novo* hydronephrosis and correction of VUR (grade 0). If recurrent pyelonephritis was documented after a negative postoperative VCUG, the test was repeated.
Results: A total of 36 patients underwent Bulkamid® injection between March 2011 and January 2012. Median age at surgery was 43 months (range 10 mo to 21 yo). Eight males and 28 females were included for a total of 62 refluxing ureters. Bilateral reflux was identified in 23 patients (64%). Nine patients had duplex systems and 2 of them had reflux in both renal moieties. Reflux grade was I in 10, II in 18, III in 17, IV in 13 and V in 4 ureters. Mean volume injected was 1.07 ml. Success rate for grade 1 to 3 was 78% and overall, it was 69.4%.
Conclusion: Our short-term data demonstrated an interesting success rate principally for low grade reflux with the off-label use of this newly approved product. It was easily injected and the technique did not require any modification. Another interesting aspect of this product is his lower cost compared to other available bulking agents.

8 h 28 - 8 h 37

Chronic diseases, prostate cancer aggressiveness and mortality after radical prostatectomy

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Introduction: Early but growing clinical, epidemiological and experimental studies are linking cancer in general to various chronic medical conditions. However, little is known about the association of chronic diseases with prostate cancer, and even less about their interactive effects on the mortality after radical prostatectomy. Our objective was thus to determine the impact of both chronic diseases and disease aggressiveness on mortality from prostate cancer versus other causes after radical prostatectomy.

Methods: We conducted a retrospective study where we included all patients in whom we had comorbidity information at time of radical prostatectomy. From the comorbidity data, we calculated the age-adjusted Charlson score. Clinical follow-up was according to standard guidelines but left to the clinicians's discretion. Also, we matched our institutional database to the one of l'Institut de la Statistique du Québec in June 2011 to identify mortality. The cause of mortality was determined from chart review and death certificates. We examined the associations between the Charlson score and the disease aggressiveness parameters at time of radical prostatectomy. Also, we conducted univariate and multivariate survival analysis assessing time to death from prostate cancer (DOD) versus from other causes (DOOC).

Results: The mean patient age was of 62.9 ± 6.3. The mean follow-up was of 8.8 ± 4.4 years. Pathologic tumour Gleason grade was of 8 or more in 19% and of 7 in 41%, while stage was of T4 in 2% and of T3 in 38%. Patients with greater comorbidities presented with more aggressive prostate cancers at prostatectomy, both in terms of tumour grade (Mantel-Haensel chi-square p=0.0006) and stage (p=0.0015). At multivariate Cox regression, we observed an increased risk of DOD with increasing tumour stage (p=0.0001) and grade (p<0.0001) but not with increasing age-adjusted Charlson score (p=0.9). In contrast, we observed an increased risk of DOOC with increasing Charlson score (p<0.0001) but not with stage (p=0.9). There was a 32% increase in the risk of DOOC in patients with Gleason 7 disease (multivariate p=0.045), which was not significant in those with Gleason 8 (p=0.39) likely because of the strong risk of DOD.

Conclusion: The Charlson score is a valid stratification tool of the risk of mortality from other causes even in patients undergoing radical prostatectomy. However, it is not associated with the risk of prostate cancer specific mortality. On the other hand, disease aggressiveness is positively associated with both risks of mortality from prostate cancer and other causes. This suggests that there may be a common link between chronic diseases and prostate cancer disease aggressiveness. More research to decipher the common causes, whether genetic or else, linking chronic diseases to prostate cancer aggressiveness are needed.

8 h 37 - 8 h 46

Clavien Classification in Urology: Is There Concordance among Post-graduate Trainees and Attending Urologists?

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Introduction: Clavien classification was originally derived as an objective method of classifying complications in open surgery. However, its applicability to urology has not been studied. Therefore, the aim of the present study was to assess the agreement rate among urologists applying this classification to actual cases and to compare Clavien scores given by attending urologists to scores given by postgraduate trainees.

Methods: Twenty cases from surgical complications over a period of one year covering a tertiary care center were selected to compile the survey. The case scenarios were chosen to include both minor and major complications. After a briefing and explanation session concerning the classification, the survey was administered to 16 attending urologists and 16 urology postgraduate trainees. Concordance rates were recorded for each case separately and as a pool of cases. Weighted kappa statistics were calculated to assess the interrater agreement.

Results: Twenty cases were evaluated among 32 participants. The mean concordance rate was 81 % (50- 100%, 95%CL: 7.67). Three of the 20 scenarios (15%) had concordance rate of 100% while 7 (35%) had concordance rates below 80%. In two cases, the scores given by postgraduate trainees were significantly different from that given by attending urologists (p≤0.03). In one case, postgraduate trainees gave a significantly lower score (grade I and II by 75% and 25%, respectively) than attending urologists (grade I, II, and III in 25, 50, and 25%, respectively) (p=0.01). In the other case, 94% of postgraduate trainees had graded the complication either IIIb (94%) or higher while the attending urologists graded it as IIIb (75%) or lower (p=0.03). There was no significant difference between both groups in terms of overall scoring of complications (p=0.12) where Kappa statistics revealed a good agreement level between both groups (k=0.753, p<0.001).

Conclusions: There was good overall concordance among post-graduate trainees and attending urologists in application of Clavien Classification in urology cases.

8 h 46 - 8 h 55

Impact de l'indice de prolifération tumorale mesuré avec Ki-67 sur la progression du cancer de la prostate et la mortalité après prostatectomie radicale

Patrice Desmeules; Hélène Hovington; André Caron; Louis Lacombe; Yves Fradet; Bernard Têtu; Vincent Fradet
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Introduction et objectifs : Le comportement clinique du cancer de la prostate est hautement variable et ne peut être prédit de façon satisfaisante simplement par des critères cliniques et histopathologiques. L'émergence de nouveaux marqueurs pronostiques est souhaitable pour identifier les candidats à une thérapie plus agressive. Cette étude vise à définir l'impact de l'indice de prolifération tumorale, tel que mesuré par la détection du marqueur nucléaire Ki-67, sur la récidive et surtout sur la mortalité par cancer après prostatectomie radicale.

Matériels et méthodes : Le devis d'étude fut de cohorte rétrospective. Les 251 sujets inclus avaient un suivi clinique complet et ont été sélectionnés au hasard à partir de notre banque de données de prostatectomie radicale pour créer une micropuce tissulaire. Les tissus tumoraux ont été échantillonnés sur 6 sites par spécimen de prostatectomie radicale pour créer cette micropuce d'une manière standardisée. L'immunohistochimie a été effectuée avec un anticorps dirigé contre Ki-67 (DAKO). Un décompte manuel exhaustif des noyaux cellulaires tumoraux positifs a été fait pour chaque site échantillonné. La moyenne des 6 sites tumoraux par patient a été calculée. Des analyses de survie univariées et multivariées (covariables : âge, grade de Gleason et stade) ont été réalisées.

Résultats : L'âge médian des patients était de 64.0 (Q1=59.2—Q3=67.8) ans. Le suivi médian après prostatectomie était de 11.0 ans (Q1=8.9—Q3=12.3). En analyse Kaplan-Meier, un indice de prolifération tumorale élevé (5% et plus versus moins de 5% de cellules Ki-67-positives) est associé à un taux augmenté de récidive biochimique (logrank p=0.0012) et de mortalité par cancer (p<0.0001) après prostatectomie radicale. Toutefois, l'indice de prolifération tumorale n'est pas associé au taux de mortalité par autres causes que le cancer (p=0.24). Les modèles multivariés de régression de Cox révèlent qu'un indice de prolifération élevé est associé avec une augmentation par un facteur 8 du risque de mortalité par cancer (RR=7,99; IC=2,18-29,26; p=0.0017).

Conclusions : L'indice de prolifération tumorale, du moins tel que mesuré par l'expression nucléaire de Ki-67, est un facteur pronostique indépendant important. Le risque de mortalité par cancer est beaucoup plus élevé chez les patients ayant un indice de prolifération élevé. Ceci représente une nouvelle trouvaille et suggère que cet indice pourrait être ajouté comme biomarqueur pronostique aux autres facteurs clinico-pathologiques utilisés de manière routinière. Comme le Ki-67 est fréquemment utilisé dans les laboratoires de pathologie, la faisabilité de cette approche est réaliste.

8 h 55 - 9 h 04

Active surveillance for Prostate Cancer Compared with Immediate Treatment: A United States - Canadian economic comparison

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Introduction: Active surveillance is an accepted management strategy for patients with low-risk prostate cancer. The costs associated with active surveillance strategy compared with immediate active treatment were recently evaluated in the US healthcare system (Keegan et al, Cancer, 2011). The corresponding estimates in the Canadian healthcare context are unknown. The main objective of this study was to evaluate the costs associated with active surveillance (AS) and treatment in the context of Quebec's public healthcare system. The secondary objective was to identify factors potentially explaining differences between the US and Canadian systems.

Methods: A Markov model with Monte-Carlo microsimulations was adapted from Keegan et al (Cancer, 2011) for the Canadian context in order to simulate the cost of prostate cancer treatment over a 5-year period for patients initially on AS. The patients on AS were assumed to receive delayed treatment at a rate of 7% per year. Active treatment included radical prostatectomy (RP), image-modulated radiotherapy (IMRT), brachytherapy, androgen deprivation therapy (ADT), and IMRT plus ADT. The probability of receiving each treatment was assumed to be 0.4 for RP, 0.25 for IMRT, 0.1 for IMRT plus ADT, 0.15 for brachytherapy and 0.1 for ADT. All assumptions were derived from Keegan et al (Cancer, 2011) in order to allow direct comparison. Il costs were assigned in Canadian dollars ($) and reflect Quebec's public healthcare system. Accordingly, the costs of medical procedures related to treatments and medical visit costs were based on RAMQ's lists: ''Manuel des Médecins Spécialistes, 2012'' and ''Manuel des médecins spécialistes services de laboratoire, 2012''. Moreover, the costs of medications were obtained from the 2012 RAMQ's list of medications approved for public reimbursement. For all other costs published sources were used. The cost of AS and treatment were categorized into initial cost and follow-up cost over the 5-year period. The treatment course of 10,000 incident subjects initially on AS was simulated over a 5-year period by applying the Markov model.

Results: With AS, the average cost of prostate cancer management over the 5-year period was estimated at $5 312 (95%CI: $5 245 to $5 387) per patient. The weighted mean cost corresponding to the immediate treatment strategy was estimated at $9 349 per patient. Over the 5-year period, these result in a relative reduction of the mean cost of approximately 43.2%. In addition, 30% of patients on AS will have received a delayed treatment and have incurred higher costs estimated at $10 009 per patient. Among these patients, the minimum individual cost was $7 882 and the maximum individual cost was $24 920, respectively.

Conclusion: Despite the fact that clinical data, clinical practice guidelines and the management of prostate cancer are quite similar over the North-American continent, the US and Canadian evaluation of costs shows differences, which are principally attributed to medical costs. These figures translate into a difference in relative reduction of cost of prostate cancer management obtained with AS of approximately 36% in US when compared to 43.2% in Canada. Accordingly, the cost savings per patient, related to AS could be more important in Canada than those estimated in US. However, this cost estimate comparisons must be validated in Canadian-derived assumptions as well as a comprehensive economic audit of Canadian practice cost evaluation. Our Markov model will be furthermore adapted to address these elements.

9 h 04 - 9 h 13

Définir un « trifecta » pour les petites masses rénales en post-opératoire de néphrectomie partielle par laparoscopie

Yves Fradet; Vincent Fradet; Annie Imbeault; Louis Lacombe; Yves Caumartin; Jean-François Audet; Thierry Dujardin; Annie-Claude Blouin; Frédéric Pouliot
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Introduction et objectifs : Décider du traitement d'une petite masse rénale (PMR) est devenu de plus en plus complexe avec le développement de techniques chirurgicales minimalement invasives, la reconnaissance de l'importance de la fonction rénale et du risque bien établi de décès par cancer du rein. Bien que plusieurs auteurs aient étudié séparément les issues de morbidité, d'oncologie et de fonction rénale après la néphrectomie partielle par laparoscopie (NPL), le pourcentage de patients atteignant une combinaison idéale des trois issues (trifecta) demeure inconnu. L'objectif de l'étude était donc principalement de préciser ce pourcentage en utilisant différentes définitions possibles de trifecta. L'objectif secondaire était de mesurer l'impact des facteurs périopératoires liés au patient, à la tumeur et à la chirurgie sur la probabilité d'atteindre le trifecta.

Matériels et méthodes : Entre 2003 et 2008, 318 patients ont subi une NPL pour une PMR dans le Centre Hospitalier Universitaire de Québec (CHUQ). 179 patients rencontraient nos critères d'inclusion, c'est-à-dire une masse unique, une pathologie maligne et un taux de filtration glomérulaire (TFG) pré-opératoire ≥60 ml/min. Après une collecte de données rétrospective, nous avons généré plusieurs définitions possibles de trifecta en combinant les critères de morbidité, d'oncologie et de fonction rénale.

Résultats : Les patients avaient respectivement une moyenne d'âge, de score ASA, d'indice de masse corporelle (IMC), de diamètre de tumeur (mm) et de TFG pré-opératoire (ml/min) de 59, 2, 28, 25 et 83. Le suivi moyen était de 44 mois. En choisissant la définition suivante comme le meilleur trifecta: absence de récidive, TFG ≥60 au plus long suivi et absence de complication ≥IIIb selon la classification de Clavien-Dindo, 77.7% des patients réussissaient à l'atteindre, avec respectivement 96.1%, 96.7% et 83.2% des patients qui répondaient indépendamment aux critères choisis de morbidité, d'oncologie et de fonction rénale. En analyse univariée, les patients qui atteignaient le trifecta étaient plus jeune, avaient un IMC plus petit, un meilleur score ASA et une plus petite tumeur ($p<0.05$). En utilisant d'autres définitions, entre 20.7 et 98.3% des patients atteignaient le trifecta.

Conclusions : Après la NPL, la fonction rénale à long terme était le critère le plus fréquemment responsable d'un échec à l'obtention du trifecta. Ces résultats démontrent que la NPL est une intervention chirurgicale rarement morbide et que la néphrectomie radicale par laparoscopie (NRL) ne devrait pas être justifiée si basée sur les issues de morbidité et d'oncologie. Enfin, notre travail sert de base à l'utilisation d'un trifecta pour comparer le succès de la NPL à d'autres approches chirurgicales.

9 h 13 - 9 h 22

Échecs physiques de l'électrode lors de la stimulation des nerfs sacrés

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Introduction et objectifs : La stimulation des nerfs sacrés (SNS) est un traitement reconnu pour les dysfonctions urinaires et intestinales réfractaires. L'amélioration de la technique chirurgicale et de programmation ont réduits de façon considérable les complications et le taux de révision de l'appareil. Plusieurs études ont évalué quelques variables associées à l'échec de SNS à long terme tel que le taux de migration de l'électrode et les paramètres de stimulation initiaux, mais aucune étude n'a étudié les facteurs intrinsèques à l'électrode lors d'échecs. Cette étude a pour but de décrire les anormalités de l'électrode de SNS lors d'échecs thérapeutiques à long terme.

Matériels et méthodes : Ceci est une étude rétrospective de tous les patients ayant subis l'implantation de SNS à la Cleveland Clinic de Janvier

2003 à Décembre 2011. Une révision de leurs dossiers a été effectuée pour identifier les patients qui avaient des impédances anormales lors de l'interrogation de l'appareil durant les visites de suivi et les patients ayant subis une révision chirurgicale ou une explantation de leur appareil.
Résultats : SNS a été implanté chez 623 patients entre janvier 2003 et décembre 2011. L'âge moyen des patients était de 50.7 ans et l'indice de masse corporel moyen était de 28.5 kg/m2. Le suivi moyen était de 4.1 ans. L'indication de SNS était urgence/fréquence mictionnelle et incontinence urinaire d'urgence chez 79.4% des patients and rétention urinaire non obstructive chez 17.4% des patients. En tout, 87 cas d'impédances anormales ont été identifiées chez 73 patients (11.7%). Les fractures d'électrodes (impédance >4000 Ohms) représentaient 64.3% (56/87) des anormalités, 33.3% (29/87) étaient des courts circuits (impédances <50 Ohms) et 2.2% (2/87) étaient des anormalités mixtes. Des révisions ou explantations ont été nécessaires dans 63.2% des cas, tous après une tentative infructueuse de reprogrammation de l'appareil. Tous les cas de courts circuits et 52.7% des fractures d'électrodes touchaient plus qu'une seule électrode. L'électrode 3 représentait 33% des fractures, alors que les électrodes 0, 1 et 2 comptaient toutes pour 22% des échecs. Les fractures d'électrodes ont été notées 28 [11-41.7] mois après l'implantation, tandis que les court circuits ont été notés 5 [2-12.5] mois après l'implantation.
Conclusions : Des anormalités d'impédances surviennent chez 11.7% des patients après l'implantation permanente de SNS. La majorité nécessite une révision chirurgicale. Les fractures d'électrodes représentent 63% des anormalités. L'électrode 3 (plus proximale) semble avoir un taux de fracture plus élevé. L'optimisation de la réponse des autres électrodes durant l'implantation de même que la programmation autour de l'électrode 3 pourrait minimiser le besoin de révision chirurgicale.

9 h 22 - 9 h 31
The management of post-transplant lymphoceles: Evolution toward a less invasive approach

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Introduction: Lymphocele is a common complication following kidney transplantation and may have devastating consequences on the graft function. In our experience, lymphocele management has dramatically evolved overtime toward a less invasive approach. The purpose of this study is to review efficacy and complications associated with their treatment.
Methods: Between January 1990 and December 2010, 962 kidney transplantations have been performed in our institution. The transplantations were conducted by multiple surgeons using a single technique. On 961 recipients, 152 (15.8%) developed a lymphocele postoperatively. Characteristics of recipients and donors, peri-transplant details, long-term function and survivals were retrospectively collected. Descriptive analysis of patients who developed a post-transplant lymphocele has been performed to assess efficacy and complications of different management options.
Results: From the 152 patients presenting a post-transplant lymphocele, 119 (78%) required an active treatment. Aspiration was the most frequently used (52%) but was associated with a low success rate (15%). Indwelling drainage improved the success rates up to 34% but was associated with higher risk for infectious complications (14%). At first, internal marsupialization of the lymphocele was the operation of choice for refractory lymphoceles and was necessary for 44% of our symptomatic patients with a 50% success rate and a 17% complication incidence. Later, sclerotherapy with proviodine was used in 35% of our cohort with a high success rate of 97% and a complication rate of 5%.
Conclusion: In our experience, post-transplant lymphocele management has evolved favourably toward a minimally invasive approach with proviodine sclerotherapy. This treatment strategy has been associated with a high success rate and low incidence of complications. Consequently, it is the authors' opinion that this treatment option should be favored early in the treatment of symptomatic lymphoceles post renal transplantation.

9 h 31 - 9 h 40
The use of dorsally placed buccal mucosal grafts in the reconstruction of complex bulbar urethral strictures

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Introduction: Our goal was to present our experience with repairing long-segment urethral strictures with single-stage urethroplasty using a dorsal onlay buccal mucosal graft.
Matériels et méthodes : Restrospective data was collected on patients who underwent dorsal onlay buccal mucosal graft urethroplasty for long-segment urethral strictures between 2009 and 2012. Collected variables included etiology of the stricture, previous procedures, age, location and length of stricture, length of flap, failure and need for additional interventions.
Results: Twelve patients had underwent dorsal onlay mucosal graft urethroplasty between 2009 and 2012, with a median age of 37 years (range 17-48). All strictures were bulbar in location with a mean length of 3.5 cm (median 3.5 cm), and the mean length of the grafts was 4.2 cm (median 4 cm). At a mean follow-up of 7.8 months (median 2.5 months), there were no failures observed, with none of the patients requiring any endoscopic or surgical interventions.
Conclusion: Short-term results for dorsal onlay buccal mucosa graft urethroplasty appear very promising in long-segment bulbar urethral strictures. However, longer follow-up is required to further magnify the success of the approach and its validation.

9 h 40 - 9 h 49
Systematic review of the effectiveness of bowel preparation and antibiotic prophylaxis in preparation of adults with invasive bladder cancer undergoin

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Introduction: Although no consensus exist among experts, bowel preparation (BP) and antibiotic prophylaxis (ABP) are commonly used as perioperative interventions in radical cystectomy (RC). The objective of this work is to assess the effectiveness of perioperative BP and ABP in adults undergoing RC.
Methods: A search was performed in Pubmed, Embase, the Cochrane Library, and grey literature to identify systematic reviews (SR), randomized controlled trials (RCTs) and observational studies (OS). Selection, quality assessment, and data extraction from articles were performed by two independent reviewers. Primary outcomes were surgical sites infections and anastomotic leaks. Synthesis review was shared with bladder cancer experts.
Results: 358 studies were retrieved for efficacy assessment. One RCT and three OS on BP as well as one SR and one OS on ABP were included after quality assessment. Studies showed that BP prior to RC with urinary diversion does not demonstrate any significant advantage in perioperative outcomes (e.g., surgical site infection, anastomotic leakage). A lack of well-designed studies investigating the need for ABP in urologic interventions was observed. No clear interpretation can be done regarding the best ABP regimen (multidose, unidose, no dose) to prevent postoperative complications in patients undergoing RC. Two studies on BP and none for ABP were included among 176 citations retrieved on adverse events (AE). BP appears to be well tolerated in most patients and minor AE were reported.
Conclusion: Although BP appears to be safe and well-tolerated, according to available evidence, BP for urinary diversion in reconstructive urologic surgery might not be a requisite. No firm conclusion can be drawn for the ABP regimen in RC preparation. Most studies on BP and ABP in RC had several limitations such as retrospective design, few patients in each groups and endpoints not well-defined. Because of the paucity and the low quality of the available studies, further researches are required to support evidence-based clinical pathway in RC. Literature from other major abdominal surgeries, such as colorectal surgery, should also be reviewed to identify knowledge that could be transferred to RC.

9 h 49 - 9 h 58

Prévention du cancer de la prostate : Effets de l`huile de krill et de l`huile de poisson sur l'inflammation

Xavier Moreel; Bertrand Neveu; Gabrielle Villeneuve; Yves Fradet; Pierre Julien; Vincent Fradet
Centre Hospitalier de l'Université Laval-Québec

Introduction et objectifs : L'inflammation est un facteur de risque important du développement et de la progression du cancer de la prostate. Nous avons développé un modèle de culture primaire de cellules prostatiques, grâce auquel nous avons montré que l'inflammation prostatique est très variable entre les individus et qu'un haut niveau d'inflammation est associé aux cancers agressifs de la prostate. Avec ces travaux, nous voulons étudier l'incorporation des acides gras issus de l'huile de poisson et de l'huile de krill dans les cellules épithéliales prostatiques en culture et leurs effets sur l'inflammation prostatique.

Matériels et méthodes : Toutes les expériences ont été réalisées en triplicats. Les cellules épithéliales proviennent de biopsies prostatiques prélevées chez un patient opéré par prostatectomie radicale pour un cancer de la prostate localisé à la glande avec un score de Gleason de 7. Les biopsies sont prélevées dans la zone normale périphérique de la prostate et sont mises en culture dans un milieu sélectif. L'ajout d'huile de poisson, d'huile de krill ou de milieu contrôle se fait à 90% de confluence pendant 24 heures. L'inflammation prostatique est dosée par la sécrétion d'Il-8 dans le milieu de culture et est normalisée par l'ADN total. Après récolte, les cellules sont lavées 4 fois dans de l'HBBS, puis les lipides membranaires sont extraits par la méthode de Folch. Le profil des acides gras est obtenu par chromatographie en phase gazeuse.

Résultats : L'ajout d'huile de poisson ou d'huile de krill augmente les niveaux membranaires d'oméga-3 (13 fois, $p<0.0001$ et 12 fois, $p=0.003$) et d'oméga-6 (1,5 et 1.2 fois, $p>0.08$) dans les cellules en culture. Les acides gras issus de l'huile de krill (phospholipides) sont incorporés plus rapidement que ceux de l'huile de poisson (triglycérides). Toutefois, l'ajout d'huile de poisson ou d'huile de krill a un effet pro-inflammatoire chez ce patient avec niveau inflammatoire bas.

Conclusions : L'intégration des acides gras issus de l'huile de krill se fait plus rapidement que ceux issus de l'huile de poisson. Chez un patient avec un niveau inflammatoire prostatique bas, les deux huiles ont un effet pro-inflammatoire. La prévention du cancer de la prostate par supplémentation en huile de poisson ou en huile de krill ne doit pas être proposée à chaque patient.

9 h 58 - 10 h 07

Preoperative delays prior to radical cystectomy in patients with bladder cancer: a population-based study

Fabiano Santos; Armen Aprikian; Eduado Franco
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Introduction: Bladder cancer (BC) is the second most common urological cancer and the sixth most common diagnosed malignancy in Canada. Muscle-invasive BC is often treated by radical cystectomy (RC). Preoperative delays are a major concern with respect to outcomes in BC patients. We reported in 2006 that preoperative delays prior to RC for BC were high and that there was a detrimental effect on mortality. This study was undertaken to determine if preoperative delays have been changing in more recent years in Quebec. Therefore, the objectives of this study are (1) to characterize and measure the impact of the different components of delay experienced by BC patients before RC in Quebec; (2) to analyze temporal trends in delay during a 10 year period; (3) to identify predictors of longer delays and (4) to determine the impact of the various components of delay on survival.

Methods: We conducted a retrospective cohort study using data from patients who underwent a RC for BC from 2000 to 2009. The cohort was obtained with the linkage of two administrative databases: the *Régie de l'assurance maladie du Québec* (RAMQ), and the *Fichier des évenements démographiques* de *l'Institut de la statistique du Québec* (ISQ). The RAMQ database provides prospectively collected data on medical services dispensed to all Quebec residents. The ISQ provides demographic data on all births and deaths in Quebec. To be included in the study, patients must have undergone a RC in Quebec, and also have medical services data available for the two year period before RC. We determined several components of delay for each patient. Descriptive statistics were used to summarize the characteristics of the study population. The relationship between each delay variable and its potential predictors were analyzed trough the Kruskall–Wallis test.

Results: 2988 patients met inclusion criteria and were included in this study (75% were males, 65% were older than 60 years of age). Prior to RC, 82% of patients underwent cystoscopy, and 75% had transurethral resection of bladder tumor (TURBT). Mean delay from cystoscopy to RC and from TURBT to RC were 80 days (95% CI: 77-81) and 60 days (95% CI: 58-61), respectively (Medians: 64 days and 50 days, respectively). Furthermore, median cystoscopy to RC delay increased from 2000 to 2009 (60 to 76 days, $p<0.001$). Patients who had three or more TURBTs had significant longer delays, when compared to patients with 2 or 1 TURBT (median: 60 days, $p<0.001$). Median TURBT to RC delay also progressively increased from 2000 to 2009 from 40 to 63 days ($p<0.001$).

Conclusion: Since our last report, preoperative delays have been progressively increasing over time. Previous results from our team showed that a delay of more than 12 weeks is associated with worse long-term overall survival following surgery for BC. Results on predictors of longer delays and its impact on survival will be presented at the time of the conference.

10 h 07 - 10 h 16

From podium to press: The 10-year publication rate of abstracts presented at the annual meetings of the Quebec Urological Association

Talal Al-Qaoud; Faysal Yafi; Armen G Aprikian
McGill University

Introduction: Our aim was to determine the rate of peer-reviewed publications stemming from abstracts presented at the annual meetings of the Quebec Urological Association (QUA).

Methods: All abstracts presented at the annual meetings of the QUA between 2000 and 2010 were obtained from the QUA archives and were searched using the PubMed database. To maximize the search yield, both author names and titles were used to aid in retrieving published abstracts. Analyzed variables included number of publications, year of publication, submitting institution and impact factor of the publishing journal according to the 2010 Thomson Reuters report. Analysis of variance was used to detect significance in trends.

Results: At a median follow-up of 6 years (range 1-11), 248 of 446 (55%) abstracts were published. When stratifying by institution, the publication rates were 66% (95/144), 49% (82/167), 36% (25/69), and 71% (10/14) for Quebec universities, and 69% (36/52) for non-Quebec universities ($p<0.001$). The mean impact factors (IF, Total IF/Total published) of publishing journals per institution were 3.18, 4.54, 3.24, and 2.87 for Quebec universities, and 4.86 for non-Quebec universities ($p=0.04$).

Conclusion: The conversion rate from QUA presentation to publication was considerably higher than previously reported in similar reports from the American Urological Association (1998-2000, 37.8%) and British Association of Urological Surgeons (2001-2002, ≈40%). Whether this is a reflection of quality of presentations, size bias or stricter abstract inclusion criteria is debatable. Furthermore, there was significant variability between the different institutions within the province of Quebec.

Session scientifique II

Objectifs éducatifs : À la fin de cette session, les participants seront en mesure de :

1. Connaître les mecanismes d'action, contre indications et effets secondaires de l'oxygénotherapie hyperbare systemique (OTHS).
2. Discuter de certaines indications de l'OTHS.
3. Visualiser l'organisation physique d'un complexe de médecine hyperbare.

11 h 16 - 11 h 45
Indications de traitement en oxygénothérapie hyperbare
Conférencier : Mario Côté Service médecine hyperbare, CSSS Alphonse-Desjardins
Modérateur : Paul Ouellette