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Long-Term Impact of Bariatric Surgery on Venous Thromboembolic Risk: a Matched Cohort Study

Moussa O, Ardissino M, Tang A, et al (2019) Ann Surg [1]

Objective: The aim of this study is to evaluate the effect of bariatric surgery on long-term risk of VTEs in a large cohort of patients with obesity.

Background: Obesity is a well-established risk factor for VTEs, such as pulmonary embolism and deep vein thrombosis. The rising prevalence of obesity and its associated co-morbidities, including VTE, represent a growing public health issue.

Methods: A nested, retrospective matched cohort study was designed and conducted on prospectively collected national electronic healthcare records data from the Clinical Practice Research Datalink. Eight thousand, one hundred twelve patients were included in the study: 4,056 patients on the database who had undergone bariatric surgery, and equal numbers of age, sex, and body mass index matched controls. The primary endpoint was the occurrence of VTEs and the secondary endpoints were the occurrence of deep vein thrombosis alone, pulmonary embolism alone.

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Results: Patients were followed up for a median of 10.7 years. The bariatric surgery cohort had a significantly lower occurrence of the primary outcome [hazard ratio (HR): 0.601; 95% confidence interval (CI): 0.430–0.841, $P = 0.003$]; mainly driven by a reduction in deep vein thrombosis (HR: 0.523; 95% CI: 0.349–0.783, $P = 0{\cdot}002$) and not in pulmonary embolism (HR: 0.882; 95% CI: 0.511–1.521, $P = 0.651$).

Conclusions: The results of this nation-wide study set out to characterize the impact of bariatric surgery on long-term risk of thromboembolic events outline a significant reduction in thromboembolic events, driven by a reduction in deep vein thrombosis.

Commentaire : *Plusieurs études ont mis en évidence un risque accru de développer une TVP après chirurgie bariatrique la première année postopératoire [2–4]. L'évaluation sur le long terme à plus de cinq ans n'a jamais été faite. Le but de cette étude est d'étudier, à partir de la base de l'assurance maladie anglaise de patients opérés de chirurgie bariatrique, si la chirurgie permet une diminution ou non des événements thromboemboliques. Les patients présentant un antécédent de TVP ont été exclus. L'ensemble des patients opérés d'une CB (4 073 patients) ont été appariés 1:1 avec l'ensemble de la population en fonction de leur âge, sexe et IMC. Le suivi moyen était de dix ans. Les patients opérés d'une CB présentaient de manière significative moins d'événements thromboemboliques que les patients suivis [1,7 vs 4,4 %, hasard ratio (HR) : 0,601, intervalle de confiance (IC) à 95 % : 0,430–0,841, p = 0,003]. Les TVP étaient aussi diminuées de manière significative, mais pas les embolies pulmonaires après CB (1,1 vs 3,4 %, HR : 0,523, IC 95 % : [0,349–0,783], p = 0,002 ; 0,8 vs 1,4 %, HR : 0,882, IC 95 % : [0,511–1,521], p = 0,651). En conclusion, la CB permet une diminution sur le long terme des événements thromboemboliques par diminution des TVP.*

Diagnostic and Therapeutic Management of Post-gastric Bypass Chronic Diarrhea: a Systematic Review

Sollier C, Barsamian Charles, Bretault M, et al (2020) Obes surg [5]

Abstract: There is a lack of recommendation regarding exploration and treatment of chronic diarrhea following gastric bypass, while it is a common side effect of this surgery. The electronic databases MEDLINE and EMBASE were searched until July 2018. Of the 553 articles identified, 35 articles were included. Intestinal bacterial overgrowth and pancreatic exocrine insufficiency are the main etiologies of diarrhea following gastric bypass. The diagnostic approach must begin by eliminating infectious causes of diarrhea. Exocrine pancreatic insufficiency can be diagnosed with fecal fat quantification or fecal elastase 1 level evaluation. A positive lactulose breath test confirms suspicion of small intestine bacterial overgrowth. In conclusion, we propose sequential exploration and treatment of the possible etiologies of diarrhea depending on clinical symptoms.

Commentaires : *Cette revue très intéressante pose un problème rencontré très fréquemment après chirurgie bariatrique : la gestion des diarrhées après gastrique by-pass (RYGB ou OAGB). Trente-cinq papiers ont été inclus dans l'analyse. La prévalence de la diarrhée après gastrique by-pass varie de 8 à 46,1 % [6,7]. Cela est expliqué par la recherche non systématique en consultation. L'ensemble des étiologies et traitements est évoqué (pullulation microbienne, insuffisance pancréatique, dumping syndrome…). Une figure résume l'ensemble de la prise en charge, très utile dans notre activité.*

Role of Bariatric Surgery in Reducing the Risk of Colorectal Cancer: a Meta-analysis

Almazeedi S, El-Abd R, Al-Khamis A, et al (2020) Br J surg [8]

Background: Obesity increases the risk of multiple co-morbidities such as type-2 diabetes, cardiovascular disease and most cancers, including colorectal cancer. Currently, the literature presents conflicting results regarding the protective effects of bariatric surgery on the incidence of colorectal cancer. This meta-analysis was conducted to investigate the effect of bariatric surgery on the risk of developing colorectal cancer in obese individuals.

Methods: Ovid Embase, Ovid Medline, Cochrane Central and Web of Science were searched for relevant articles. Articles published by the end of December 2018 were retrieved; data were extracted according to evidence-based PICO (Population, Intervention, Control, Outcome) model and analysed using a random-effects model to estimate the pooled relative risk (RR) and its 95 percent confidence interval. The heterogeneity of studies was tested and quantified using Cochran's Q and I2 statistics. Meta-regression was used to investigate the association of year of study, region, mean length of follow-up and sample size with RR.

Results: Seven articles, involving a total of 1,213,727 patients, were included in the meta-analysis. The pooled estimate of the RR was 0.64 (95 per cent c.i. 0.42 to 0.98). The test of asymmetry found no significant publication bias. Meta-regression showed that sample size was a statistically significant factor ($P = 0.037$), but year of publication, region and mean duration of follow-up were not significant.

Conclusion: Patients who underwent bariatric surgery had greater than 35 per cent reduction in the risk of developing colorectal cancer compared with obese individuals who had no surgery.

Commentaire : *Nous savions que l'obésité était un facteur de risque de développer de nombreux cancers tels que le cancer colorectal (X2) [9,10]. Il est désormais établi que la chirurgie bariatrique permet de diminuer de manière significative le risque de développer un cancer et plus particulièrement ceux dits hormonodépendants (endomètre, côlon, sein, prostate) [11]. Cette étude montre sur un large effectif les bénéfices de la chirurgie bariatrique sur la prévention du cancer colorectal dans une population dont on sait qu'elle est à risque. Ces résultats confortent les résultats d'une étude épidémiologique récente menée sur la population française. Dans cette étude, il était montré que la chirurgie bariatrique, indépendamment du type de procédure, abaissait le risque de développer un cancer colorectal au niveau de celui observé dans la population générale [12]. Trente-cinq pour cent de cancers colorectaux épargnés grâce à la chirurgie : une information sans doute pertinente à donner aux patients obèses lors de la préparation et du suivi et a fortiori chez les patients à risque.*

Conversion of Adjustable Gastric Banding to Stapling Bariatric Procedures: Single- or Two-Stage Approach

Spaniolas K, Yang J, Zhu C, et al (2019) Ann Surg [13]

Objective: The aim of this study was to compare the safety of single- versus two-stage conversion of adjustable gastric band (AGB) to gastric bypass (RYGB) or sleeve gastrectomy (SG).

Summary background data: AGB patients often present for conversion to RYGB or SG. The impact of single- or two-stage approach of such conversion remains unclear.

Methods: A statewide database was used to identify all patients who underwent AGB removal and concurrent (single-stage) or interval (two-stage) RYGB or SG. Propensity

score matching schemes were constructed to account for differences in baseline comorbidities and demographics, allowing for matched pairs available for comparisons.

Results: A total of 4,330 patients underwent AGB conversion. Complications, readmissions, and ED visits were noted in 394 (9.1%), 278 (6.42%), and 589 (13.6%) patients, respectively. Three hundred and sixty-seven matched pairs underwent RYGB; single-stage patients experienced shorter length of stay (LOS) (median difference −1 d, $P < 0.0001$), less complications [risk difference (RD): −8.4%, 95% confidence interval (CI), −13.4% to −3.5%], readmissions (RD: −5.2%, 95% CI, −9.6% to −0.8%), and ED visits (RD: −5.7%, 95% CI, −11.3% to −0.2%). Eight hundred and seventy-five matched pairs underwent SG; single-stage patients experienced improved outcomes in all measures examined. For single-stage procedures (809 pairs), RYGB was associated with longer LOS, and more complications (RD: 3.3%, 95% CI, 0.9%–5.8%), with similar readmissions, and ED visits.

Conclusions: AGB conversion procedures have low morbidity. Single-stage conversion is associated with lower morbidity compared with the two-stage approach. Conversion to SG seems to be safer than RYGB.

Commentaires : *Les modalités de conversion d'un anneau gastrique ajustable (AGA) (c'est-à-dire deuxième procédure, un temps versus deux temps) nourrissent les débats depuis de nombreuses années. Cette large étude de registre s'est intéressée à la morbidité à 30 jours des chirurgies de conversion après AGA (c'est-à-dire sleeve versus by-pass) réalisées en un ou deux temps. Indépendamment de l'efficacité qu'on sait dépendante de nombreux paramètres, la morbidité à 30 jours était la plus basse dans le groupe des sleeve avec ablation d'AGA concomitante. Ces résultats ont été validés par une étude de registre publiée récemment. Ces résultats défavorables pour le by-pass dans cette population sont à mettre en balance avec les bénéfices métaboliques souvent moins importants des sleeve après AGA [14].*

Réferences

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