The effect of medication intake on perforation rate in patients with colonic diverticulosis – A retrospective assessment

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Aim: The aim was to study the effect of drug intake on the frequency of perforation among patients with colonic diverticulosis.

Introduction: Diverticulosis is a common condition which incidence increases with age. One of the most severe complications with a high risk of late sequel and mortality is perforation of colonic diverticula. According to the current studies the use of some medications may affect the risk of perforation due to its influence on the intracolic pressure and mucosal barrier function.

Methods: A retrospective review of 294 patients (mean age 68.6) with verified colonic diverticulosis was done. Included patients were admitted to 2nd Department of General Surgery JUMC during 2006–2016. Study enrolled 206 (70.1%) women and 88 (29.9%) men. Among investigated group 36 (12.2%) patients developed perforation.

The research regarded medications including NSAIDs, corticosteroids, calcium–channel blockers, statins, opioids, aspirin, anticoagulants and antiplatelet drugs. In addition, the data concerning comorbidity and the severity of the diverticulitis was collected.

Results: In the analysis the group of patients with perforation and the group with non-perforated diverticulosis were compared. Higher rates of the use of NSAIDs (13.89% vs. 3.88%; OR = 4; p = 0.01; 95% CI = 1.28–12.46), opioids (11.11% vs. 1.55%; OR = 7.94; p < 0.001; 95% CI = 1.89–33.3) and corticosteroids (22.22% vs. 8.14%; OR = 3.22; p = 0.01; 95% CI = 1.31–7.96) were observed among the patients with perforation. The results revealed an inverse relation concerning the use of statins (5.56% vs. 22.09%; OR = 0.21; p = 0.02; 95% CI = 0.05–0.89). Similar results were found in the review of available literature.

Conclusion: Medications used by patients with colonic diverticulosis affect the incidence of perforation. The administration of NSAIDs, corticosteroids and opioids is related to an increased rate of diverticular perforation. Conversely, statins may contribute to the decrease in the frequency of perforation. We can conclude that it is important to carefully administer drugs to patients with colonic diverticulosis.

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De novo atrial fibrillation following aortic valve replacement surgery is associated with decreased creatinine clearance and increased C-reactive protein levels

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Aim: The aim of our study was to establish predictors of unplanned early reoperations after meningoima removal.

Introduction: Complications after neurosurgical procedures which lead to reoperation are associated with poor treatment outcome and costs. The knowledge of risk factors for complications might allow to implement specific preventive measures. However those factor are still poorly defined, especially in terms of benign brain tumours.

Methods: We retrospectively analysed 177 patients, with histologically confirmed meningoimas, hospitalized between 2014 and 2016 who underwent craniotomy. From medical records...
we obtained detailed medical history (previous diseases, medications, tumour characteristics, blood test results, surgery's details). Completeness of tumour resection was assessed using Simpson Grade. Early reoperation was defined as reoperation during the same hospital stay. We used χ² test for proportional values; t-student test, Mann–Whitney U test for continuous variables. To determine the potential predictors of early reoperation we used univariate and multivariate logistic regression analyses.

**Results:** A total of 13 (7.34%) patients underwent unplanned early reoperation. Those patients significantly more often had retromastoid craniotomy (25.00% vs. 6.40%; p = 0.047). And significantly more often suffered from ischemic heart disease (66.67% vs. 6.64%; p < 0.01) and atrial fibrillation (60% vs. 6.25%; p < 0.01). Reoperated patients also more often took heparin (50% vs. 6.74%; p < 0.01) and anticoagulants (66.67% vs. 6.21%; p < 0.01). In multivariate logistic regression analysis anticoagulants intake (OR: 31.463; 95% CI: 1.139–868.604; p = 0.04) and retromastoid craniotomy (OR: 6.642; 95% CI: 1.139–38.73; p = 0.034) remained independently associated with higher risk of early reoperation.

**Conclusion:** Patients who underwent retromastoid craniotomy, those with history of ischemic heart disease or atrial fibrillation and those who take heparin and anticoagulants are more likely to require early reoperation. Retromastoid craniotomy and anticoagulants intake are independent risk factors for early reoperation.

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**Prevalence of foramen arcuale and its clinical significance: A meta-analysis of 55,985 subjects**

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**Aim:** Evaluate SD after AFB and assess the importance of patent hypogastric arteries before the procedure.

**Introduction:** The aortobifemoral bypass (AFB) is one of the best options to revascularize patients with Aortoiliac Occlusive Disease (AIOD). The impact of this procedure in sexual function (SF) is unpredictable, with 20–80% of the patients reporting sexual dysfunction (SD) after surgery. There’s still insufficient data to safely predict the development of SD after AFB and what the role of hypogastric arteries.

**Methods:** The study includes only male population submitted to AFB due to AIOD. Patients with major amputations after the surgery were excluded. The development of SD was evaluated by phone call. The quality of life before and after the procedure was evaluated by a standardized index score questionnaire (15D). Pre-operative patency of hypogastric arteries was appraised by assessing the patients imaging file. The arteries with direct anterograde flow were considered patent.

**Results:** Of a total of 53 patients, 40 were included in the study – exclusion causes were intraoperative death, natural cause death and major amputation. In the included group, 37% reported worsened, 26% improved and 37% did not notice any change in SF after surgery. If at least one of the hypogastric arteries was patent before surgery, 58% described worsening in SF compared to only 13% in the group with no sustained anterograde flow to the hypogastric arteries. 92% of the patients was not warned of the possibility of SD after surgery, being that 26% of these would have refused the procedure if they knew.

**Conclusion:** SD is a prevalent and often overlooked complication after open aortoiliac revascularization and it remains a major taboo in the surgeon/patient relation. The existence of at least one hypogastric artery with preserved anterograde flow before...