ISP-28-3  Vascular complications of temporary balloon occlusion of the common iliac artery for bleeding control during surgery of placenta accreta: what will be our next step?

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[Objective] Temporary balloon occlusion of the common iliac arteries helps us minimize the blood loss during cesarean hysterectomy in cases of placenta accreta. However, it may relate with vascular complications like arterial occlusive disease of the lower extremities. [Methods] Between 2004 and mid-2015, in the single center, we included 37 pregnant women with prenatal diagnosis of morbidly adherent placenta, and performed temporary balloon occlusion of the common iliac arteries during operation for delivery the baby with placenta accreta. Balloon was inflated after delivery, and deflated as soon as hemostasis was secured. Then we closely checked the puncture site, the blood pressure, color, and warmth of both lower legs, to detect possible complications. [Results] Thirty-two (86.5%) patients fulfilled the efficacy of blood loss control less than 2000cc (average 1080 cc). Five patients showed acute complications, including 3 had thrombotic event of iliac arteries, 1 had arteriovenous fistula at puncture site, and 1 had retroperitoneal hemorrhage with symptomatic hypotension. Besides, another 2 patients complained claudication during outpatient follow up for 2 months. Total complication incidence was 18.9% (7/37) with various severity. [Conclusions] Although temporary balloon occlusion of the common iliac artery for bleeding control during placenta accreta operation showed excellent efficacy, vascular complications show relative high incidence. It is probably the time to halt the use of prophylactic balloon occlusion of common iliac artery during the operation of placenta accreta until we can prove the benefits outweighing the potential risk.

ISP-28-4  Risk stratification score for the prediction of surgical site infections with cesarean delivery

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[Objective] Of all live births reported in the United States, approximately 4 in 10 babies will be delivered via cesarean section. Surgical site infections (SSI) represent a significant and costly complication affecting patients following cesarean section. Up to 3% of women undergoing cesarean delivery will develop a SSI. The aim of this study was to identify the presence of established risk factors associated with poor wound healing in patients who developed surgical site infections following cesarean delivery. Additionally, we propose to develop a scoring system to anticipate the likelihood of developing a SSI given presence or absence of identified risk factors. [Methods] Following IRB approval, female patients over the age of 18 who developed a SSI following cesarean section on labor and delivery between January 2009 and December 2013 at our facility were identified. A retrospective chart review was performed to identify the presence of risk factors associated with poor wound healing in this cohort of patients. Risk factors identified for analysis included, diabetes, tobacco use, obesity, history of MRSA colonization and previous SSI. A chi square analysis was used to calculate the likelihood of developing a surgical site infection based on risk factors identified. Logistic regression and conditional backward stepwise model was used to generate a predictive equation to calculate the risk of developing surgical site infection. [Results] 128 patients who developed a SSI following cesarean delivery were identified. An equal number of control patients who delivered within the same month and did not develop a SSI were analyzed for the presence or absence of risk factors associated with surgical site infection. The presence of diabetes, MRSA colonization or a history of previous infection was identified in the cohort of patients who developed surgical site infections. Obesity (OR=4.89, 95% CI 2.59–9.23) and tobacco (OR=2.33 CI 1.28–4.31) use were found to be the strongest risk factors associated with the development of SSI. The sensitivity and specificity as determined by a ROC curve of the predictive equation were found to be 0.75 and 0.71, respectively. [Conclusions] In this retrospective analysis, both obesity and tobacco use were independently associated with the development of SSI. Further research with a prospective model is required to validate the positive predictive value of this equation.

ISP-28-5  Adverse Events after Non-obstetric Surgery in Patients with Pregnancy: A Nationwide Study

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[Objective] To evaluate the adverse events after non-obstetric surgery in patients with pregnancy. [Methods] Using claims data of Taiwan National Health Insurance system, we conducted a retrospective cohort study of 5591 pregnant women underwent non–obstetric surgeries in 2008–2012. We selected 22364 women without pregnancy for comparison by matching procedure with the propensity–score. Adjusted odds ratios (ORs) and 95% confidence intervals (CIs) of postoperative complications and mortality associated with pregnancy were calculated in the multivariate logistic regressions. [Results] Pregnant women had higher risks of 30-day postoperative septicemia (OR 1.76, 95% CI 1.48–2.09), pneumonia (OR 1.48, 95% CI 1.01–2.15), urinary tract infection (OR 1.31, 95% CI 1.09–1.09), and in–hospital mortality (OR 4.19, 95% CI 2.76–6.38) compared with women without pregnancy. Pregnant women also had longer length of stay and higher medical expenditure after non–obstetric surgery than women without pregnancy. The association between pregnancy and women adverse events after non–obstetric surgery was significant in every age group. [Conclusions] Surgical patients with pregnancy had more adverse events with four-fold 30-day mortality after non–obstetric surgery compared with those without pregnancy. Our findings suggest the urgent revising the protocol of postoperative care for this specific population.