

**ISP-1-9** Effect of cerclage on labor course and obstetric outcome : a case-control study

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[Objective] The purpose of this study was to evaluate the effects of cervical cerclage on labor course and obstetric outcome. [Methods] In a retrospective case-control study, we compared labor course, total labor duration, and obstetric complications in 127 women who received cervical cerclage with 254 controls. [Results] There was no significant difference in the duration of the first stage of labor ( $477 \pm 576$  vs.  $373 \pm 437$  minutes,  $p = 0.075$ ) or the second stage of labor ( $18 \pm 17$  vs.  $20 \pm 19$  minutes,  $p = 0.287$ ) between the 2 groups. In the multivariate analysis, women in the cerclage group were found to be significantly more likely to have a prolonged latent phase (odds ratio [OR], 2.802; 95% confidence interval [CI], 1.103–7.120;  $p = 0.030$ ), cervical laceration (OR, 15.984; 95% CI, 3.169–80.624;  $p = 0.001$ ), and treatment with tocolytics (OR, 2.580; 95% CI, 1.217–5.468;  $p = 0.013$ ) than the control group. No significant difference was noted in cesarean delivery rate. [Conclusions] Cervical cerclage is more likely to be associated with a prolonged latent phase and minor obstetric complications, but not with a difference in the total duration of labor or increased cesarean delivery rate.

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金**ISP-2-1** Assessing Methods of Blood Loss Quantification at Time of Cesarean Section

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[Objective] Visually estimated blood loss (EBL) at cesarean section is notoriously inaccurate and subject to physician bias. The objectives of this study were 1) compare EBL to two alternative methods of estimation : quantitative blood loss (QBL) and calculated blood loss (CBL), and 2) study the relationship of these estimates to clinical outcomes. [Study Design] This was a prospective observational study of all C-sections at UCSD from 7/2011 to 3/2012, in which a QBL and EBL were recorded independently. EBL was assigned by the attending surgeon. QBL was determined by the circulating nurse, derived by adding the suction canister volume with the blood weight of laparotomy sponges (Figure). CBL was derived from the product of the maternal blood volume and the % of blood lost (Figure). Statistical analysis was performed by z-value comparison of Spearman's correlation coefficient. [Results] 234 patients qualified for inclusion ; median gestational age was  $39 + 2$  weeks. Primary indications for surgery were elective repeat (24%) and active phase arrest (23%). Median blood loss by EBL, QBL, and CBL were 900, 853, and 1150mL, respectively. The percent of women with hemorrhage (defined as  $BL \geq 1000$ mL) by EBL, QBL, and CBL was 40%, 34%, and 59%. EBL and QBL were modestly correlated with each other ( $R = 0.59$ ,  $p < 0.05$ ), but less correlated with CBL ( $R = 0.40$  and  $0.48$ , both  $p < 0.05$ ), and were not statistically different from one another (z value 0.66). The sensitivity and specificity of a diagnosis of hemorrhage ( $BL \geq 1000$  mL) for transfusion, use of uterotonics, or length of stay (LOS)  $> 4$  days was not significantly different for QBL than EBL (Table). [Conclusion] Compared to EBL, QBL did not correlate better with an objective measure of blood loss (CBL) at cesarean delivery. Both EBL and QBL may underestimate actual blood loss by up to 300mL, and neither method satisfactorily predicts clinically important outcomes. Future studies should examine other methods of quantifying blood loss and redefine hemorrhage definitions according to objective blood loss estimates.

**ISP-2-2** Rupture of renal artery aneurysm during the early postpartum period

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Rupture of renal artery aneurysm associated with pregnancy is an uncommon condition. It is known that almost all previously-reported cases occur during pregnancy. We experienced a case of ruptured renal artery aneurysm during the early postpartum period which was diagnosed by computed tomography scan and treated by angiographic embolization. To our knowledge, only two cases of ruptured renal artery aneurysm during the postpartum period have been reported in the English literature. An early diagnosis of ruptured renal artery aneurysm during the postpartum period is very challenging because the clinical symptoms of this condition are acute abdominal, flank, or back pain, which are relatively common signs caused by more common postpartum complications. However, ruptured renal artery aneurysm is a life-threatening emergency condition requiring prompt diagnosis and treatment. The possibility of a ruptured renal artery aneurysm should be considered in any pregnant women with symptoms of an acute abdomen with hemorrhagic shock.