

Maternal and neonatal morbidity in transvaginal cerclage patients versus transabdominal cerclage patients: a retrospective study

JinBo Li¹ ; HongYe Jiang²; ShuZhong Yao²; ShuQin Chen¹

¹: Department of Gynecology, The Sixth Affiliated Hospital, Sun Yat-sen University., ²: Department of Gynecology and Obstetrics, The First Affiliated Hospital, Sun Yat-Sen University

Corresponding author : Dr. ShuQin Chen, chshqin@mail.sysu.edu.cn



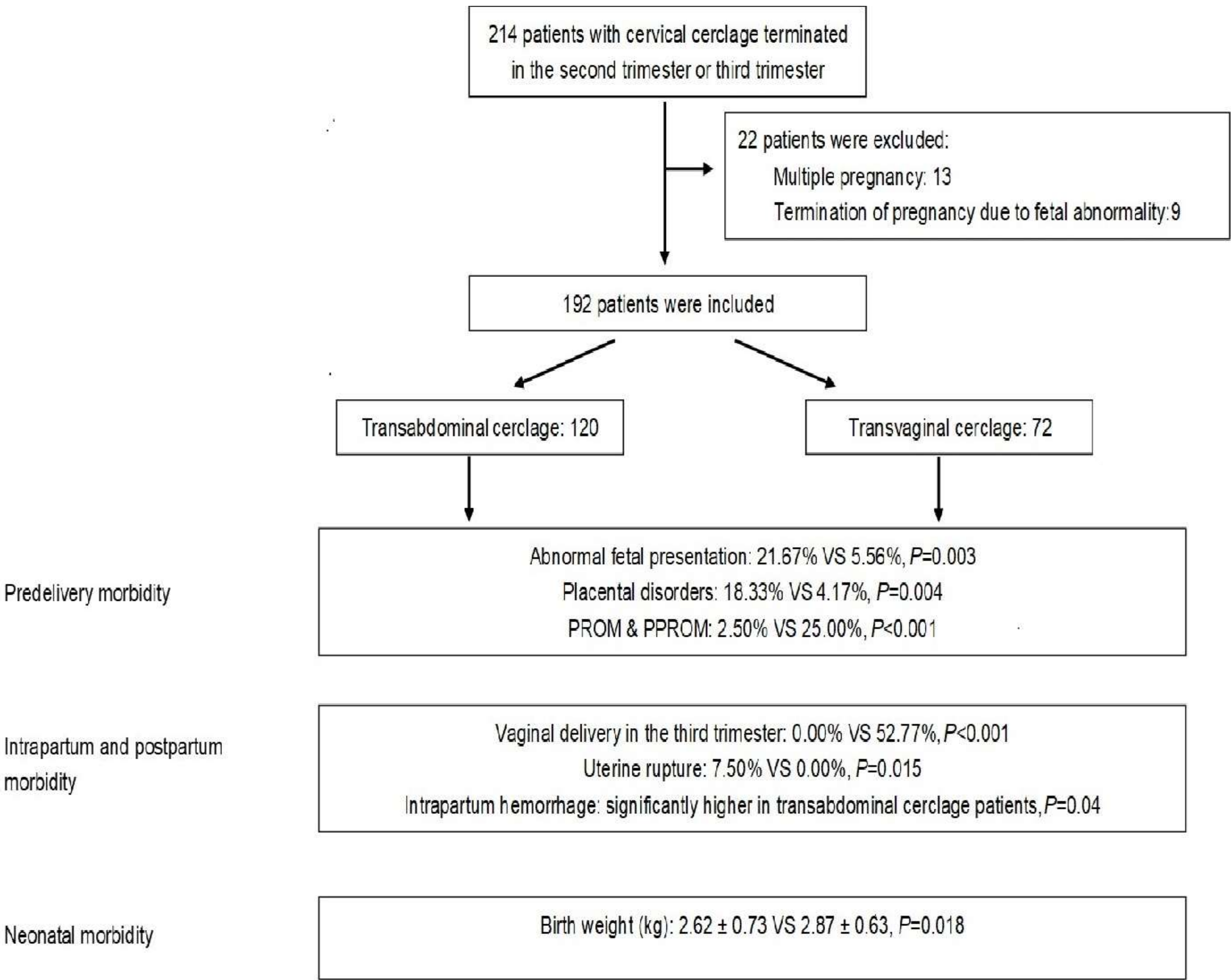
Objective: To investigate maternal and neonatal morbidities in transvaginal cerclage (TVC) patients and transabdominal cerclage (TAC) patients.

Design: Retrospective study conducted in two tertiary care centers.

Methods: Patients who received TVC/TAC and subsequently terminated the pregnancy in the second trimester or third trimester in our center from January 1, 2010 to December 31, 2019 were included. Data of basal clinical characteristics, predelivery maternal morbidities, intrapartum morbidities, postpartum morbidities and neonatal morbidities of TVC patients and TAC patients were analyzed and compared.

Results: Seventy-two TVC patients and 120 TAC patients were included. There were significantly higher abnormal fetal presentation rate and placental disorder rate in TAC patients than that in TVC patients (5.56% vs 21.67% and 4.17% vs 18.33%, *P*=0.003 and *P*=0.004, respectively). There was significantly higher premature rupture of membranes rate in TVC patients than that in TAC patients (25.00% vs 2.50%, *P*<0.001). Compared with TVC group, intrapartum hemorrhage and uterine rupture rates were significantly higher in the TAC group. There was no vaginal delivery in the third trimester in the TAC group, contrast to the 52.77% vaginal delivery rate in the TVC group. No statistical significances were found in mean gestational age at delivery, gestational age gained post cervical cerclage, additional hemostasis measures, type of uterine incision during cesarean section, preterm delivery rate and mode of delivery in the second trimester and other maternal morbidities between the two groups. The mean fetal birth weight in the TVC group was significantly lower than that in the TAC group (2.62 ± 0.73 kg vs 2.87 ± 0.63 kg, *P*=0.018). There was comparable gestational age at delivery and other neonatal morbidities between TVC patients and TAC patients.

Conclusion: Compared with TVC patients, TAC patients were associated with significantly higher incidence of maternal morbidities in abnormal fetal presentation, placental disorders, intrapartum hemorrhage and uterine rupture.



Flow chart and main results of this study