Uterine rupture after previous caesarean section in Chinese women: two decades of experience in a tertiary obstetric unit in Hong Kong

Chung M Y, Leung T Y
The Chinese University of Hong Kong, Hong Kong, Hong Kong

Objective
To determine the incidence of uterine rupture, the risk factors, maternal and perinatal complications of uterine rupture after previous caesarean section.

Methods
Retrospective cohort study; Setting: A tertiary obstetric unit in Hong Kong; Population: Chinese women with previous caesarean section delivering in Prince of Wales Hospital in between 1995 to 2014. Methods: Identification of cases by hospital database and review of medical records; Main Outcome measures: Number of cases with uterine rupture. Maternal outcome including operative blood loss, postpartum hemorrhage, hysterectomy, bladder injury, uterine tear were assessed. Perinatal outcome including Apgar score at 1 minute and 5 minute of life, cord arterial pH value, need for neonatal intensive care unit support, and neonatal death.

Results
There were 132061 deliveries in between 1995 to 2014 in our unit, of which 9964 women were Chinese women with previous caesarean section. A total of 11 Chinese women with complete uterine rupture were identified. The incidence of uterine rupture after previous caesarean section was 0. 15% and 0. 085% in the period 1995-2004 and 2005-2014 respectively. The overall risk of uterine rupture with a trial of labour after one previous caesarean section was 0. 15%, and was 0. 1% with spontaneous onset of labour, increased to 0. 48% with the use of oxytocin. 81. 8% of the cases with uterine rupture had primary postpartum hemorrhage. The perinatal outcome was generally poorer with prelabour rupture of uterus. The infant mortality rate was 27. 3%.

Conclusion
There was no evidence of increasing trend in uterine rupture in Chinese women in Hong Kong. Trial of labour after one previous caesarean section is a safe option especially with spontaneous onset of labour.