

Incidence And Contributing Factors For Uterine Rupture In Patients Undergoing Second Trimester Termination Of Pregnancy - A Single Center Experience

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BACKGROUND

The incidence of uterine rupture arising from second trimester termination of pregnancy (TOP) is higher in scarred uterus than unscarred uterus. However, there is no published data in our local population.

This study aims to identify the incidence and contributing factors for uterine rupture in women undergoing second trimester TOP in KK Women's and Children's Hospital (KKH) in Singapore.

METHODS

This was a retrospective study of 3385 patients who underwent second trimester TOP from 2005 to 2014 in KKH. Patients with uterine rupture while undergoing second trimester TOP were identified and their characteristics were analysed.

The total number of patients with scarred uterus and the mean gestational age were estimated using a random sample of 100 patients who underwent second trimester TOP from 2005 to 2014.

The mean number of gemeprost required for successful second trimester TOP was obtained from an internal hospital audit conducted between December 2012 to July 2016.

RESULTS AND DISCUSSION

A total of 3385 patients underwent TOP from 2005 to 2014, out of which an estimated 339 of these patients had scarred uterus. The overall incidence of uterine rupture was 0.21% (7/3385). The incidence of uterine rupture in patients with scarred uterus was 2.1% (7/339). There was no case of uterine rupture in patients with unscarred uterus.

A mean of eight doses of gemeprost was required for successful TOP. In the cases complicated with uterine rupture, a mean of 13 doses of gemeprost (range 4 to 25) was used (See Figure1). Compared with uncomplicated cases, uterine rupture was found to complicate TOPs commencing at later gestations (See Figure2).

Four patients had abdominal pain and one had shock prior to the diagnosis of uterine rupture. All uterine ruptures were confirmed at laparotomy. There were no cases of hysterectomy or death.

Table 1: Characteristics of patients who had uterine rupture while undergoing second trimester TOP

Patient Characteristics	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5	Patient 6	Patient 7
Age(years)	32	30	30	35	37	38	23
Parity	1	2	2	2	4	2	3
Number of previous caesarean section	1	2	2	2	2	2	3
Gestational age (weeks)	22.0	19.0	22.1	21.0 (twins)	14.7	22.7	19.0
Duration of years between last previous caesarean section and time undergo MTPT	3	2	2	4	3	7	5
Number of courses of gemeprost	2	2	2	3	4	5	< 1

Figure1

Mean Dosage of Gemeprost

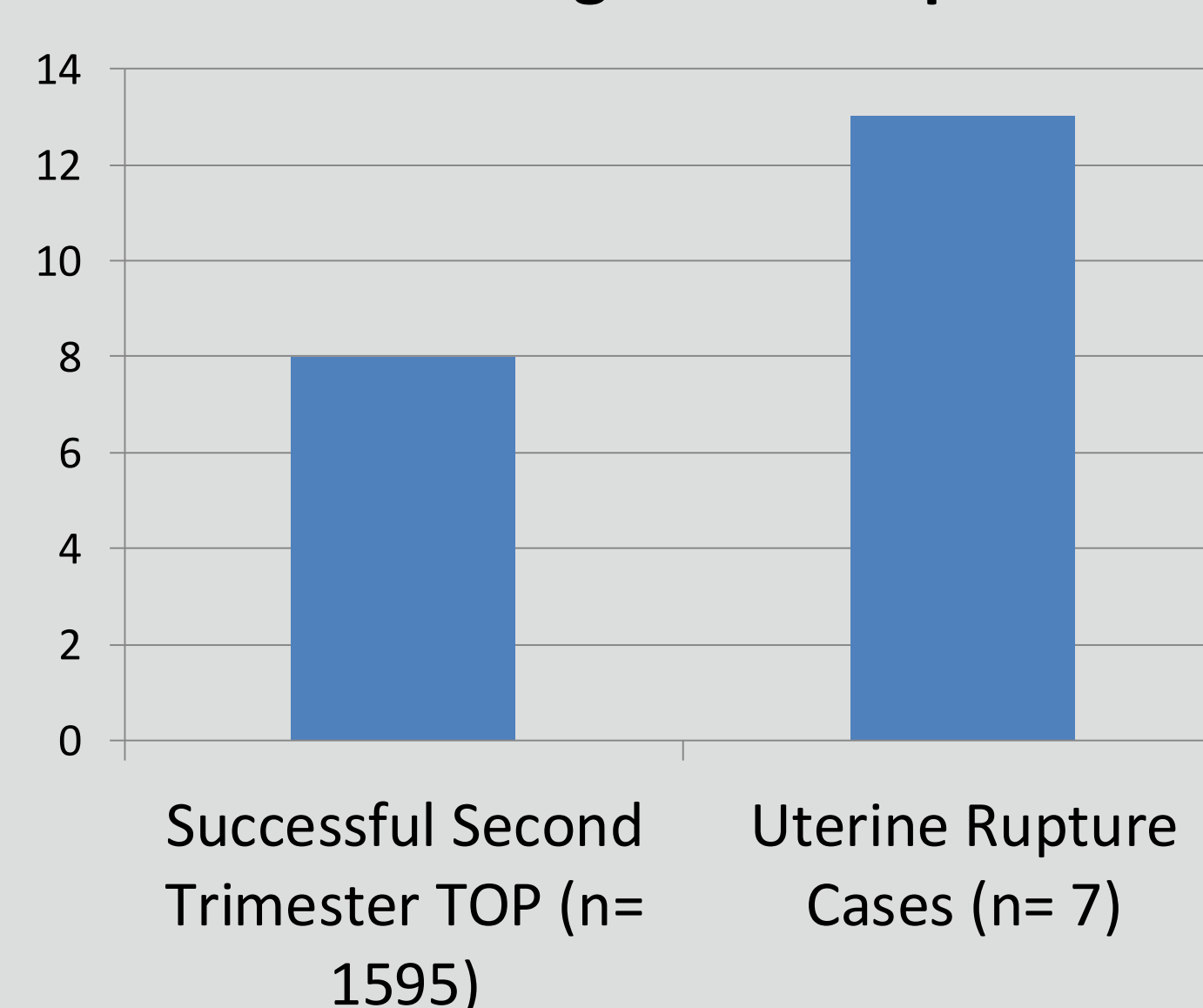
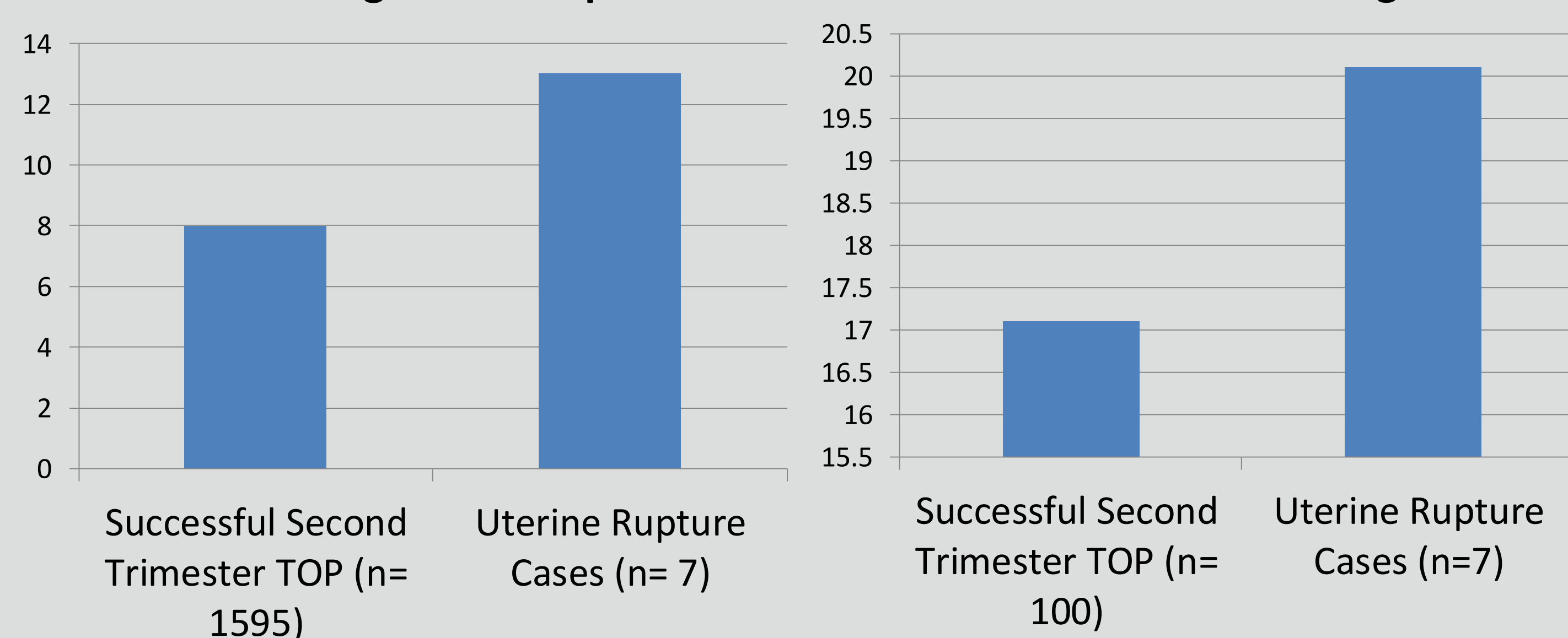


Figure2

Mean Gestational Age



CONCLUSION

Second trimester TOP on scarred uterus warrants careful usage of prostaglandins with minimal cumulative dosage and should be carried out in early second trimester gestation whenever feasible.

Gemeprost was safe to be used for second trimester TOP in unscarred uterus.