

## CERVICAL PROLAPSE DURING PREGNANCY

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### SUMMARY

We share our experience of a successful management of a rare obstetric problem, prolapse of the cervix during pregnancy. Though the patient presented with a potentially life-threatening condition, both maternal and foetal outcomes were satisfactory due to a rational approach to conservative management.

### INTRODUCTION

The occurrence of prolapse of the cervix during pregnancy is rare. Fewer than 245 cases have been reported in the literature, and only 6 have been reported since 1968<sup>1-4</sup>. The reported incidence of 1 in 13,000 deliveries<sup>5</sup> and 1 in 15,696 deliveries<sup>6</sup> are from studies done in the 1940's.

The reported complications of cervical prolapse during pregnancy range from minor cervical desiccation and ulceration to sepsis resulting in maternal deaths. The scope of complications includes, but is not limited to spontaneous abortion, preterm labour, foetal demise and maternal sepsis<sup>7</sup>. Fourteen cases of maternal sepsis with deaths<sup>8</sup> were reported in an American series in 1925<sup>5</sup>.

With the advent of antibiotics, the severity of the maternal deaths has been greatly diminished, but foetal deaths rates have remained high at about 18%<sup>5,8</sup>.

Patient discomfort, urinary tract infection, acute urinary retention and prenatal loss are also serious risks<sup>9</sup>.

Given that cervical prolapse during pregnancy is a rare event, and the outcome quite unfavourable for both mother and foetus, we have set out to cite a case and describe a rational approach to conservative management with a favourable outcome.

### CASE REPORT

A 30year old petty trader, gravida 3 para 2, about 34 weeks pregnant was seen at the obstetric emergency unit of the Korle Bu Teaching Hospital on 15<sup>th</sup> July 2002, having been referred from Nsawam Government Hospital with a non-reducible mass which had suddenly prolapsed out of her vaginal introitus a day before presentation. Her two children were delivered by Caesarean section on account of fetopelvic disproportion.

She had been caring for her bed-ridden mother at home since she was about three months pregnant. The care included lifting her ill mother up for toileting and bathing.

The pregnancy had been uneventful until the sudden prolapse of a mass out of her vaginal introitus. She had not been coughing and was not asthmatic.

Her height was 149cm and she weighed 51kg at presentation. She was anxious, slightly anaemic clinically and her axillary temperature was 37.5°C, her blood pressure was 110/65mmHg and there were no abnormal cardiovascular or respiratory findings.

There was a midline abdominal scar. A gravid uterus was palpable with a symphysio-fundal height of 32cm. The foetal heart tone was present at a rate of 138 beats per minute. There were no other masses palpable per abdomen.

Pelvic examination revealed a massive oedematous prolapsed cervix at the introitus (Figure 1).

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**Figure 1** Oedematous cervix prolapse

Haemogram results on admission were as follows: haemoglobin 8.7g/dl, sickling negative, white cell count  $6.8 \times 10^9/L$ , (Neutrophils-48%, Lymphocytes-51%, Eosinophils-1%).

Urine routine analysis and culture revealed no abnormality. There were no abnormal findings in the blood urea, electrolyte, creatinine and uric acid levels.

A mixed growth of *Staphylococcus aureus* and *Escherichia coli* was found on culture of swab from the prolapsed cervix.

An ultrasound scan done a day after admission revealed a single viable fetus with average gestation of 33 weeks, adequate liquor volume and placenta posteriorly located. There was no fetal anomaly.

She was cared for with bed rest and oral Co-amoxiclav and Metronidazole for seven days; and haematinics. The cervical prolapse was managed by sitz baths and local application of povidone iodine and Vaseline gauze.

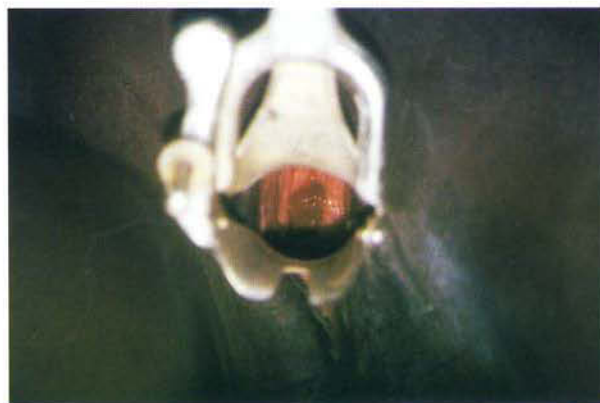
There was no significant reduction in the size of the prolapse; her condition also remained satisfactory.

She was counselled on family planning in the presence of her husband later on in the ward and she opted for tubal ligation.

A 2.6kg female baby with an Apgar score of 8 at one minute was delivered by Caesarean section at 37 weeks. Pomeroy's method of bilateral tubal ligation was done.

Her condition improved remarkably after delivery. The prolapsed cervix regressed as the oedema resolved.

At six weeks post partum, the uterine size was normal with no evidence of cervical prolapse. The cervix could only be visualised by a bivalve speculum examination (figure 2). The cervical smear cytology report revealed no dyskaryosis.



**Figure 2** Bivalve speculum examination

## DISCUSSION

The main support of the uterus and vaginal vault is the trans-cervical ligament also known as the cardinal ligament. It forms a firm attachment from the supravaginal cervix to the tough obturator fascia on the side wall of the pelvis. Failure of these supportive ligaments leads to prolapse of the uterus vaginal vault. The factors which can lead to the failure of the supportive structures include vaginal child birth, congenital and developmental weakness and the influence of low oestrogen levels of menopause<sup>10</sup>. In addition other factors that increase intra-abdominal pressure like ascites, abdomino-pelvic tumours and chronic cough enhance the occurrence of uterine prolapse in a weakened supportive ligament.

Prolapse of the cervix during pregnancy might not be entirely secondary to simple uterine prolapse. Hypertrophic elongation of the cervix is also likely to contribute<sup>11</sup>.

The baffling issues in this case are that the patient had no vaginal delivery. There were no abdomino-pelvic tumours except the pregnant uterus. The only important factor was lifting her ill mother up in bed. This activity certainly induces increase intra-abdominal pressure.

The treatment of cervical prolapse during pregnancy has varied considerably, particularly in earlier times. Chinese native doctors saturated the protruding cervix with kerosene oil and set fire to it<sup>12</sup>. Interruption of the pregnancy followed by plastic repair, and also placement of vaginal pessary were recommended in the early 20<sup>th</sup> century. The most common method of delivery was forceps after Dührssen incisions<sup>2,5</sup>. It was only during the



1960's that spontaneous vaginal delivery was demonstrated to be feasible<sup>8</sup>.

Our patient was delivered by caesarean section because of the two previous Caesarean sections.

Conservative management was the key to successful treatment. It was important to keep the prolapsed cervix moist from desiccation and ulceration and possibly secondary infection. This also prevented the occurrence of preterm labour.

## CONCLUSION

Cervical prolapse during pregnancy, a rare obstetric event could predispose the patient to many complications. With appropriate conservative intervention, the dangers can be avoided resulting in a favourable outcome.

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