

Occlusion of Upper Genital Tract Following Lower Segment Caesarean Section for Placenta Praevia

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إنسداد الجزء العلوي من الجهاز التناسلي بعد عملية قيصرية القطعة السفلية

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المخلص: يعتبر انسداد التجويف الرحمي الناتج عن إجراء عملية قيصرية لمشيمة منزاحة مركزية والذي يؤدي إلى تجمع دموي داخل الرحم وانقطاع الحيض من أندر المضاعفات المديدة التي تلي قيصرية القطعة السفلية. نستعرض هنا حالة امرأة حامل للمرة الأولى عمرها 28 عاماً بها مشيمة منزاحة من الدرجة الرابعة أجريت لها قيصرية اختيارية في الأسبوع الخامس والثلاثين من الحمل. راجعت المريضة مستشفى نزوى في سلطنة عمان وهي تعاني من آلام دورية أسفل البطن مع انقطاع الحيض لمدة سبعة أشهر. عولجت من الالتصاقات داخل الرحم بإزالتها عن طريق تنظير الرحم مع تثبيت قسطرة بولية داخل الرحم، شفيت المريضة خلال شهرين وعادت إليها الدورة الشهرية بانتظام. من الممكن أن تكون الخياطة الجراحية المستعملة لإيقاف النزيف أثناء إجراء العملية القيصرية للمشيمة المنزاحة أحد العوامل المسببة لهذه المضاعفات. بالإضافة إلى عوامل الاختطار الأخرى مثل تعدد العمليات القيصرية والتهاب المشيماء والسلي. إلى آخره. إن التعرف على هذه العوامل المسببة مع الإجراء الجراحي الدقيق والرعاية الصحية الملائمة بعد العملية يمكن أن تمنع هذه المضاعفات.

مفتاح الكلمات: المشيمة المنزاحة، التصاقات، داخل تجويف الرحم، إنسداد، الجهاز التناسلي، تقرير حالة، عمان.

ABSTRACT Uterine cavity occlusion following caesarean section for central placenta praevia culminating in haematometra and thereby amenorrhoea is one of the rarest long term complications of lower segment caesarean section. We report a case of 28 year old primigravida with Grade 4 placenta praevia who underwent elective caesarean section at 35 weeks gestation. She presented at Nizwa Hospital, Sultanate of Oman, after 7 months with cyclical lower abdominal pain and amenorrhoea. She was treated by hysteroscopic adhesiolysis and an in utero Foley's catheter. She had complete resolution of her condition within 2 months and resumption of menstrual cycles. Multiple haemostatic sutures at caesarean section for placenta praevia can be a causative factor for such a complication along with other risk factors like multiple caesarean sections, chorioamnionitis etc. Recognition of these factors, meticulous surgical technique and appropriate post operative care can effectively prevent it.

Keywords: Placenta praevia; Adhesions, intrauterine; Occlusion; Genital tract; Case report, Oman.

WHEN THE PLACENTA IS IMPLANTED partially or completely over the relatively noncontractile lower uterine segment, it is termed placenta praevia.¹ In an attempt to achieve haemostasis during caesarean section, a number of innovative techniques have been tried apart from the usual method of oversewing the open bleeding sinuses on the lower segment.^{2, 3, 4} None of the methods have been known to cause postoperative intrauterine adhesions, haematometra or amenorrhoea. In our unique case, there was absence of any other risk factors like previous caesarean section, placenta accreta or per-

creta, multiparity, post partum endometritis, intra uterine fibroids or polyps.

CASE REPORT

A 28 year old primigravida woman presented at Nizwa Hospital, Oman, in November 2005 at 32 weeks gestation with Type 4 placenta praevia. She was admitted for observation and underwent an elective lower segment caesarean section at 35+ week's gestation after attaining satisfactory fetal lung maturity. Intra-operative findings included a lower segment not well formed with varicosities, the placenta being anterola-



Figure 1: *Ultrasonography revealing haematometra and intrauterine adhesions*

teral and extending posteriorly covering the cervical internal os. Multiple haemostatic sutures were made with polyglactin 910 number 0 in the posterior uterine wall in view of the multiple bleeding vessels from the placental bed. A small vertical extension around 1.5cm at the right side of the anterior lower segment was sutured with polyglactin 910 number 0. The internal os was digitally checked. The postoperative period was uneventful and the patient was discharged on the third postoperative day.

The patient returned after 7 months to Nizwa Hospital Outpatient Department with complaints of cyclical lower abdominal pain and amenorrhoea. Detailed ultrasonography revealed a distended uterine cavity

with hypoechoic shadows resembling haematometra with biloculated endometrium in between [Figure 1].

The patient underwent cervical dilatation and diagnostic hysteroscopy with adhesiolysis. Intraoperatively, the cervix was pinpoint dilated gradually with Hegars dilator until no. 9 under ultrasound guidance. During the process, flimsy adhesions around the internal os area were broken followed by drainage of the haematometra. Hysteroscopy revealed flimsy adhesions around the internal os and the lower uterine cavity, the cavity being filled with dark altered blood [Figure 2].

Foleys catheter no.16 was introduced into the uterine cavity and the bulb dilated till 10cc to facilitate

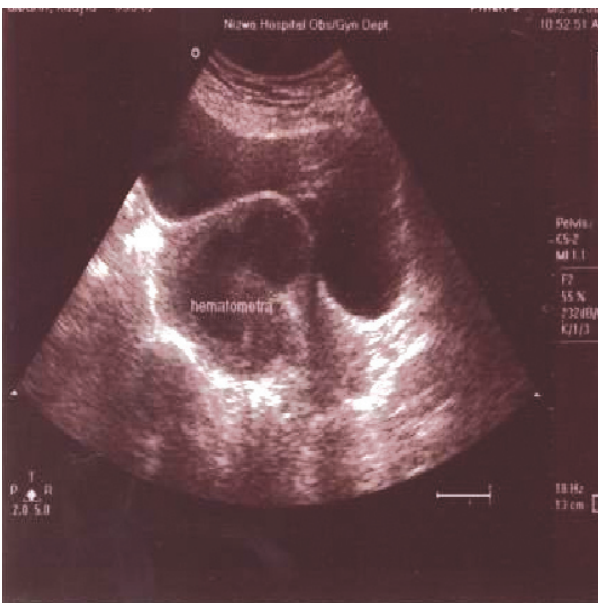


Figure 2: *Hysteroscopy under ultrasonographic guidance helped in diagnosis and appropriate management*



Figure 3: *Post procedure: near complete drainage of the haematometra*

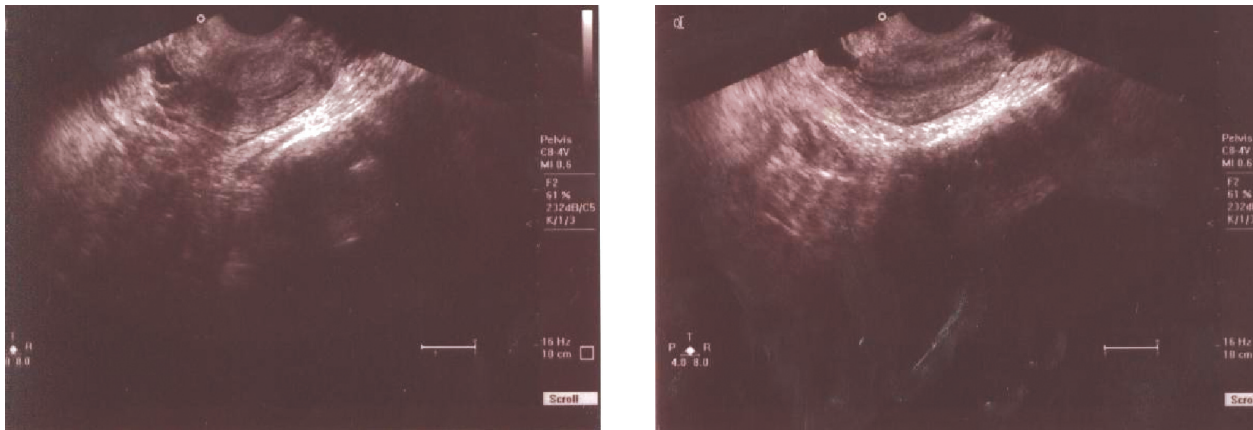


Figure 4: Postoperative follow-up ultrasound reveals complete resolution of the haematometra and a thin endometrial echo

the drainage of the intrauterine blood, the procedure being uneventful [Figure 3]. The patient was administered intravenous antibiotics and discharged on the third postoperative day after removal of the intrauterine Foley's catheter. After 2 weeks, she resumed her menstrual cycle with a normal flow of 5 days with minimal dysmenorrhoea.

A follow up ultrasonography revealed complete resolution of the haematometra and no evidence of any intrauterine adhesions [Figure 4]. The patient was followed up for 10 months after the procedure and found to have continued regular menstrual cycle with normal flow. Ultrasonography confirmed no persistent cervical stenosis.

DISCUSSION

Intrauterine adhesions following lower segment caesarean section are one of the rare complications with few case reports available in the literature.

Our patient was a primigravida with no previous history of uterine surgery, no other antepartum events suggesting chorioamnionitis, no postpartum evidence suggesting endometritis-like fever, uterine tenderness, offensive lochia or absence of lochia. A normal amount of lochia was observed in the postpartum period. She was asymptomatic for approximately 5 to 6 months thereafter. Our investigations of the patient led to the diagnosis of intrauterine synchiae and haematometra as result of the multiple hemostatic sutures that were made in the raw surface of the lower segment in an attempt for quick haemostasis.

These adhesions were flimsy and could be easily broken during slow gradual dilatation, followed by

hysteroscopy. Insertion of a Foley's catheter served two purposes: first, easy and complete drainage of the hematometra and second, preventing apposition of the uterine walls and allowing the regeneration of the endometrium. Lower segment caesarean section for placenta praevia will eventually lead to bleeding from open sinuses of the relatively noncontractile lower segment that can be catastrophically heavy. Such events can be severe in the presence of a morbidly adherent placenta or placenta accreta or percreta. After the delivery of the placenta, the bleeding vessels are oversewn by haemostatic sutures usually polyglactin 910 or daxon. When we are confronted with a patient experiencing placenta praevia with massive haemorrhage in cesarean delivery, haemostasis is first attempted using uterotonic drugs, uterine massage, and intrauterine packing. However, if these manoeuvres fail, a number of surgical techniques to control severe bleeding at cesarean delivery have been proposed, such as uterine artery ligation, hypogastric artery ligation, and uterine compression suturing.⁵ Perhaps these procedures alone or in combination can successfully control the haemorrhage. Every obstetrician must be familiar with these simple methods in order to avoid having to perform a hysterectomy and thus preserving the reproductive capability, as well as diminishing the operative morbidity.

There are a few other techniques such as the isthmicocervical apposition, an intrauterine balloon or a B-Lynch uterine brace suture.⁶ Women with multiple previous cesarean deliveries risk the development of uterine synechiae and ventral fixation of the uterus to the abdominal wall.⁷ Hysteroscopic treatment of in-

trauterine adhesions is a safe and effective treatment for the restoration of normal menstruation.⁸

CONCLUSION

Although rare, the occurrence of intrauterine adhesions and haematometra/pyometra can be a long-term sequel of caesarean section.⁹ The associated risks factors include placenta praevia, placenta accreta, percreta, chorioamionitis with prolonged rupture of membranes, multiple caesarean sections or a scarred uterus, postpartum endometritis and iatrogenic occlusion of the posterior uterine wall. Manual removal of the placenta can contribute significantly to these complications.¹⁰ The use of multiple sutures through the uterus is effective to control postpartum hemorrhage, but may lead to uterine synechiae.

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