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Case Report

Unusual presentation of a spontaneous broad ligament hematoma during pregnancy unmasking endometriosis in a primigravida inadvertently: a rare case report

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ABSTRACT

Spontaneous broad ligament hematoma during pregnancy is an extremely rare obstetric emergency that can present with acute abdomen and hemodynamic instability. It is usually associated with trauma, uterine rupture, or vascular abnormalities. Association with endometriosis is uncommon, particularly in women with spontaneous conception. We present a rare case series of spontaneous broad ligament hematoma in a primigravida and another patient with previous vaginal delivery, both having spontaneous conception, having no presenting complaints other than obstetric indication for which lower segment caesarean section was done. Spontaneous hematomas were an incidental finding in both cases, where in previously undiagnosed endometriosis was identified intra-operatively with unusual spontaneous hematomas extending to the posterior surface of uterus. Every lower segment caesarean section should be complemented with thorough exploration of posterior surface and adnexa including the peritoneal surfaces to look for any endometriotic spot, hematoma or any other unusual finding before final closure to prevent any adversity of materno-fetal outcome.

Keywords: Hematoma, Broad ligament, Lower segment caesarean section, Spontaneous

INTRODUCTION

Broad ligament hematoma is a rare but potentially life-threatening condition caused by bleeding into the broad ligament, most commonly associated with obstetric trauma, uterine rupture, or operative delivery.[1,2] Spontaneous cases during pregnancy are extremely uncommon.[2,3] Endometriosis has been implicated as a potential cause of spontaneous pelvic bleeding or hemoperitoneum due to decidualization and fragility of ectopic endometrial implants during pregnancy.[1]

In today's modern lifestyle, the incidence of endometriosis is on a rising trend owing to infertility and even presenting in unmarried girls at a very young age. Various clinical symtoms have been identified in such cases ranging from severe dysmenorrhea to dyspareuinia, dyschezia and ultimately infertility. However, the occurrence of spontaneous broad ligament hematoma in a primigravida with spontaneous conception and previously undiagnosed endometriosis is exceedingly rare.[1,3]

CASE REPORTS

Case I

A 24-year-old primigravida at 37 weeks of gestation with breech presentation with spontaneous conception

presented to the obstetrics department of Sri Guru Ram Dass (SGRD) Hospital, Sri Amritsar Sahib with complaints of heaviness in the perineum for 1 day. She was a booked and supervised case at SGRD hospital, Sri Amritsar Sahib with known case of hypothyroidism on tab eltroxin 25 micrograms escalated to 50 micrograms with uneventful antenatal period. On examination, her vitals were normal, per abdomen revealing mild contractions at fetal heart rate (FHR) of 138 beats per minute, with per vaginal findings of early labour. The patient and attendants after being explained about the risks associated with after coming head of breech consented for caesarean section. A single alive term female baby was extracted as breech on 27 February 2026 at 8:02 pm weighing 3 kg. Baby cried immediately after birth, therefore allowing delayed cord clamping. Placenta was removed with all membranes completely and spontaneously. Uterus was stitched in 2 layers achieving complete hemostasis. Vitals of the patient were noted to be normal. B/L adnexa and posterior surface was explored before closing the abdomen when a large posterior broad ligament hematoma with raw surface was noticed of around 6.5×3.5 cm extending at the posterolateral surface of the uterus on right side with multiple endometriotic spots seen on bilateral adnexa and ovaries. No active bleeding or oozing was observed. After meticulous exploration and ensuring complete hemostasis, abdomen was closed and surgery completed. Tight antiseptic dressing was done and patient was shifted out in stable condition.

Case 2

Another patient 34 years old gravida 2, para 1, living 1 (G2P1L1) with previous vaginal delivery 3 years back with 28 weeks 2 days period of gestation with known case of hypothyroidism on tab eltroxin 50 mcg presented with preterm premature rupture of membranes. Ultrasound report revealed multiple loops of cord lying at the os as the presenting part with features suggestive of fetal growth restriction with raised mean uterine artery PI with oligohydramnios.

The patient was managed conservatively till 33 weeks 6 days when patient went into labour with cord presentation on vaginal examination as was suggested in ultrasonography reports. Patient was taken up for emergency lower segment caesarean section with outcome of a single alive female baby born as vertex, cried immediately after birth, but was shifted to NICU in view of prematurity. Placenta was removed completely and spontaneously. On exploration, a spontaneous hemoperitoneum was observed on posterior surface of uterus of around 7.2×3.5 cm with multiple endometriotic spots in bilateral adnexa and ovaries. Minimal oozing was seen which was cauterized and pressure was applied with leukewarm mops. After achieving complete hemostasis abdomen was closed. Patient remained hemodynamically stable throughout the surgery and was shifted out in stable condition.

Post-operative course

Post natal period was uneventful for both patients with both issues doing good. The case I female was handed over to the patient on the same day while case II female was admitted to NICU in view of prematurity. Patients were discharged in stable and satisfactory conditions and were followed up after 1 week and 4 weeks. There were no fresh complaints and on complete thorough examination, wound healing was optimal with satisfactory post-operative recovery.

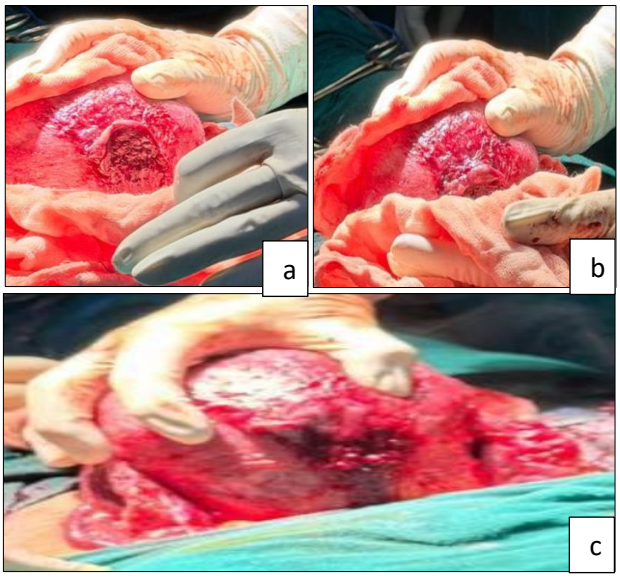

Figure 1 (a-c): Intra-operative photograph of hematoma extending upto the posterior surface of uterus with endometriotic spots in B/L adnexa.

DISCUSSION

Spontaneous hemoperitoneum in pregnancy associated with endometriosis is rare but increasingly recognized. Several mechanisms have been proposed: decidualiztion of endometriotic implants leading to vessel fragility, rupture of utero-ovarian vessels weakened by endometriosis, and increased pelvic vascularity during pregnanacy.[1]

Broad ligament hematomas are commonly seen as a complication in the post-partum period, however incidence among prepartum, to be found as an incidental finding is rare.[2]

Most reported cases which occur in women with known endometriosis, may or may not be associated with infertility treatment quite often present as an emergency, more common in multiparas or those with some history of prior surgical interventions, making cases with spontaneous conception in previously undiagnosed endometriosis particularly unusual.[5,6] Due to its potential to lead to significant maternal morbidity and even mortality, it is imperative that such complications should

be recognised early and promptly managed to prevent any lifetime damage. Optimal resuscitative measures especially the provision of blood and blood products in achieving hemodynamic stability is crucial to ensure adequate outcome.[7]

CONCLUSION

An inadvertent broad ligament hematoma discovered during caesarean section requires immediate recognition, careful surgical exploration, and systematic vessel ligation to prevent life threatening haemorrhage. Timely recognition and appropriate management are crucial to prevent adverse outcomes such as prolonged hospitalisation, infection or the need for any further surgical intervention. Documenting such cases highlights the feasibility of avoiding aggressive surgery, thereby reducing surgical risks and further morbidity.

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