DISRUPTION OF CAESAREAN SCAR WITH UTEROVESICAL SPACE

HAEMATOCELE MIMICKING AN ENDOMETRIOMA

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ABSTRACT

Our case highlights an extreme form of caesarean scar defect with diagnostic and surgical challenges.
The unusual presentation of a large extrauterine encapsulated collection of altered blood and hemosiderin behind the posterior bladder wall which communicated with the endometrial cavity, through a full thickness myometrial discontinuity, at the site of a previous caesarean section, mimicked an endometrioma in an unusual location. This case report not only highlights the diagnostic challenge involved in this case but also highlights the surgical steps involved in the laparoscopic management of this extreme end of the spectrum of caesarean scar defects. We have attached a video of the laparoscopic surgery with step wise description to shed more light on the management of this rare complication.

KEYWORDS- Caesarean Scar defect , Endometrioma , Caesarean complication

CASE REPORT

A 36 year old lady presented with continuous vaginal bleeding for ten months, following resumption of menstrual cycles ten months after her second caesarean section.

A pelvic ultrasound showed fluid in the mid endometrial cavity communicating through the anterior lower uterine myometrium to a fluid containing extra-uterine pouch , adjacent to the bladder.
An MRI showed a 1.5 cm caesarean scar defect, with a 3.1x 2.8 cm lobulated heterogeneous lesion resembling an endometrioma, communicating through the anterior myometrial wall with the endometrial cavity. The fat plane between the lesion and posterior aspect of the bladder was obliterated. A Ca 125 was 18.7 u/ml. A pregnancy test was negative.
She was treated with Dienogest for 6 months. This suppressed the active bleeding .However as there was no reduction in the size of the lesion, a Hystero-laparoscopy was planned with a view to excising the lesion and repair the defect.
At hysteroscopy, the fundus and upper uterine cavity were found to be normal but a large defect in the anterior wall near the isthmus was seen while withdrawing the scope. Through this defect fat could be visualized.
A laparoscopy showed extensive omental, parietal and bladder adhesions to the uterus, pulling it up to the anterior abdominal wall. These were dissected off following injection of diluted vasopressin into the myometrium to aid demarcation of the plane of dissection. The bladder and paravesical fat were dissected off the lower uterine segment to develop the uterovesical space. This revealed a thin walled pouch containing brownish fluid and hemosiderin deposit near the isthmus. The contents were cleared through suction and the sac lining was stripped off the posterior surface of the bladder and endometrial cavity. The upper margin of the myometrial defect was refreshed with a harmonic scalpel to excise the fibrotic tissue. The defect was repaired with number 1 polyglactin absorbable suture in 2 layers, over a Hegar dilator placed through the cervical os into the endometrial cavity to preserve canal continuity. Bladder integrity was confirmed with normal saline distension.
The patient was discharged on Dienogest for a further four months following which she resumed normal menstrual cycles.
Histology showed extensively congested fibrocollagenous stroma infiltrated focally by lymphoplasmacytic infiltrates.

DISCUSSION

Our case is an example of one of the long term complications of caesarean sections that is becoming increasingly common worldwide due to climbing caesarean section rates sometimes reaching up to 40 % , in contravention to the recommended 15% rate suggested as optimal by WHO [1,2].

This unusual presentation of a large extrauterine encapsulated collection of altered blood and hemosiderin behind the posterior bladder wall which communicated with the endometrial cavity, through a full thickness myometrial discontinuity, at the site of a previous caesarean section, mimicked an endometrioma in an unusual location. The rare presentation and atypical radiological findings, posed a diagnostic challenge. The image characteristics though resembling an endometrioma did not fit with the classical sites of an endometrioma described in literature. Moreover, no endometrial glands were found in the lining wall on histology which goes against the lesion being an endometrioma. Hence, it is best described as a haematocele in the uterovesical pouch communicating with the endometrial cavity through a caesarean scar defect.

At surgery the encapsulated extrauterine lesion in the uterovesical pouch was exposed by adhesiolysis and the capsule lining the haematocele was stripped off. The myometrial defect was repaired to prevent further pooling of blood in the uterovesical space.

Unlike a typical Caesarean scar niche or isthmocele, which is a partial defect in the healed caesarean scar, our patient had no measurable residual myometrial tissue surrounding the collection anteriorly, being lined instead by a wall of fibro collagenous tissue on histology. This confirmed a full thickness disruption of the caesarean scar, possibly due to poor healing of uterine incision.

A common symptom of the spectrum of caesarean scar defects is continuous postmenstrual bleeding (30%) [3]. The menstrual blood which collected in the saclike extrauterine pouch flowed back through the large full thickness myometrial defect into the endometrial cavity, presenting as vaginal bleeding through the rest of the month.

Medical management with Dienogest, which to our knowledge has not been used before for this indication, suppressed the symptoms but did not cause resolution of the lesion.

Our operative finding demonstrating dense fibrotic adhesions between the parietal abdominal wall, bladder and lower segment of uterus lends credence to the hypothesis which describes an upward retraction force from adhesions that counteracts and impedes caesarean scar healing as a cause of cesarean scar defect or a niche formation [4]

It is not known whether the method of uterine caesarean ,either single or double layered, influences the healing and predisposes to the scar defect. However as there was no bleeding during the first ten months after the caesarean, the blood was certainly menstrual blood and not accumulated blood due to primary bleeding from an incompletely closed caesarean incision .

Abnormal healing of caesarean scars can lead to partial defects which predispose to caesarean scar ectopics . However , our case represents the far end of the same spectrum ,as it involved a complete disruption of a caesarean scar during the process of healing, to form an encapsulated haematocele in the uterovesical pouch .

CONSENT - Consent taken from patient for publication of case report .

ETHICAL CLEARANCE –No ethical clearance was required for the nature of study.

CONFLICT OF INTEREST -None

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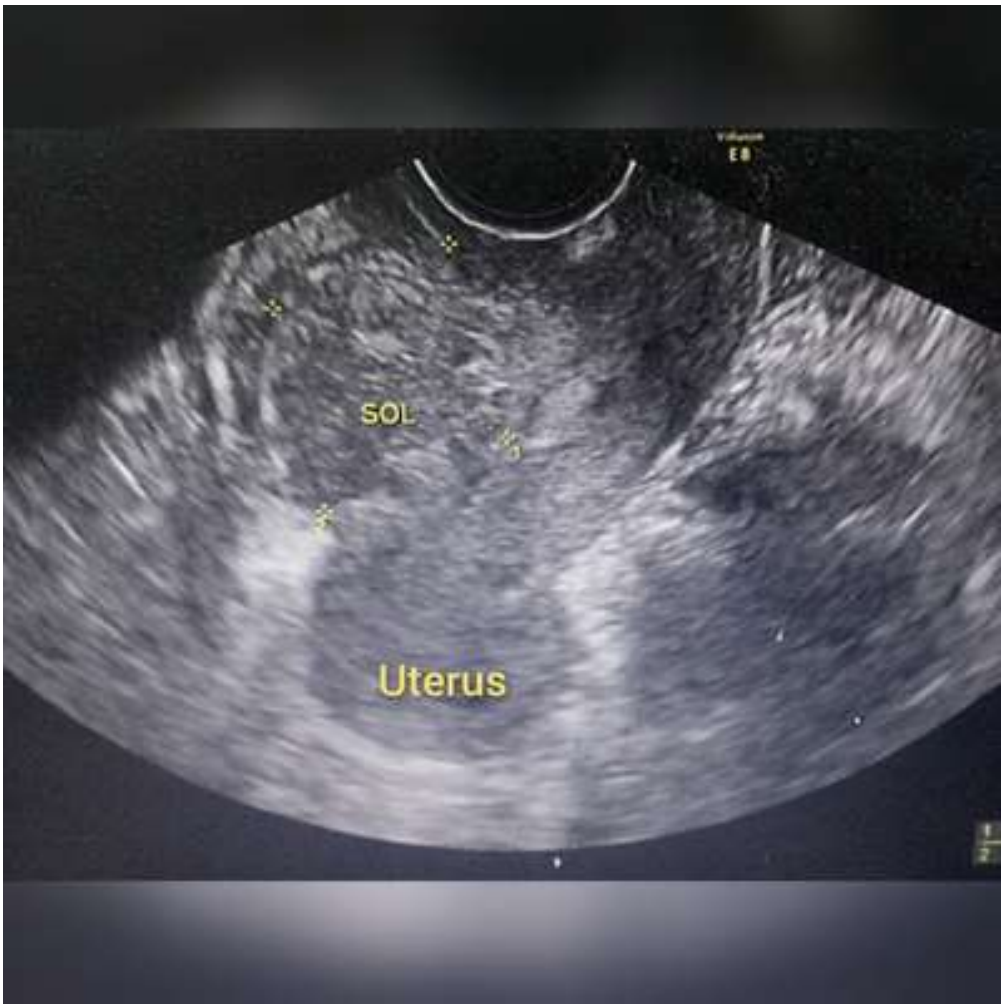
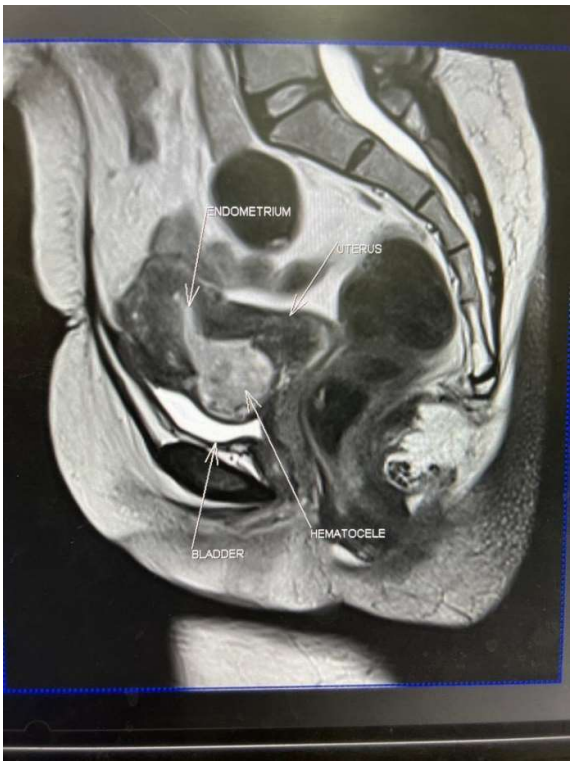
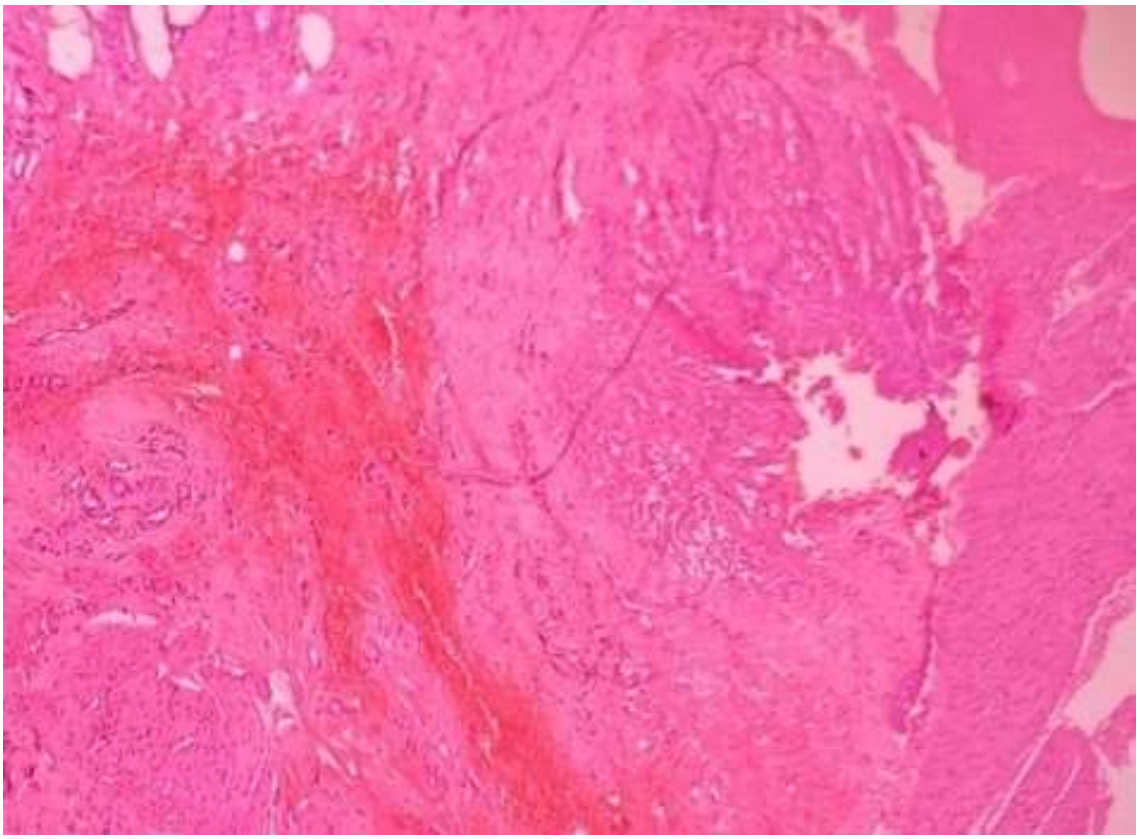


Transvaginal ultrasound image showing extrauterine heterogenous space occupying lesion communicating with the endometrial cavity



MRI image showing haematocele in caesarean scar site connecting to endometrial cavity.



Histology slide showing haemorrhage and chronic inflammation