

New method to manage subacute uterine inversion secondary to placenta accreta in a primiparous woman

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Background

Uterine inversion is a potentially life-threatening complication in the post-partum period, because of massive haemorrhage. Acute management involves fluid resuscitation and replacement of the uterus. Sub-acute inversion encompasses between 24 hours and 4 weeks post-partum. Whilst multiple non-operative methods of uterine replacement are often successful, laparotomy and hysterectomy is sometimes required.

Uterine inversion occurs in 1 in 3500 deliveries, and is most common at caesarean, where it can be manually replaced. After vaginal delivery, uterine inversion is able to be corrected with vaginal techniques in 95% of cases.

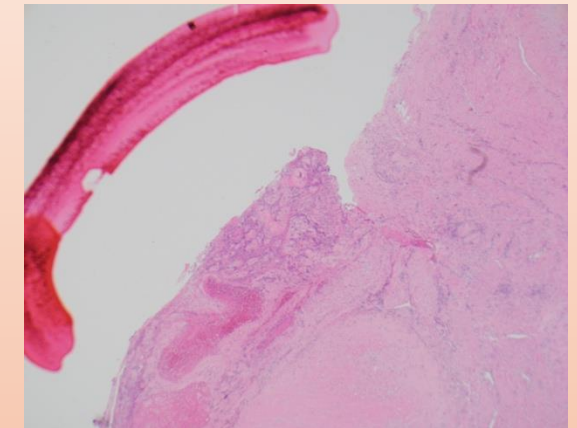
Case History

A 37 year old G1P0, with low-risk pregnancy commenced spontaneous labour and completed vaginal delivery at 41 weeks gestation. The placenta was adherent and eventually delivered piecemeal. At this time, bedside ultrasound diagnosed retained placental tissue and 2nd degree uterine inversion. Initial management with Johnson's procedure, manual removal of placental cotyledons and hydrostatic pressure occurred. The inversion was thought to be replaced with insertion of Bakri balloon, and acute management was concluded. Complications included; massive post-partum haemorrhage (3000mL), stabilised with massive transfusion protocol; post-operative acute kidney injury.

Ultrasound day 1 post delivery diagnosed persistent uterine inversion (seen on image). Conservative management with packed cell transfusions continued until day 5 when failed trial of void (2000mL retained) prompted further management. Cumulative PRBC replacement was 8 units.

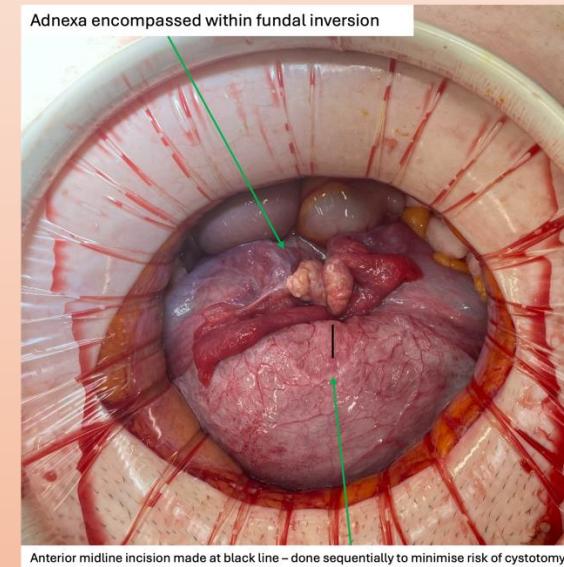


Histopathology from the debrided placental tissue showed Placenta accreta syndrome. Which is outlined by the red pen markings on the slide below.

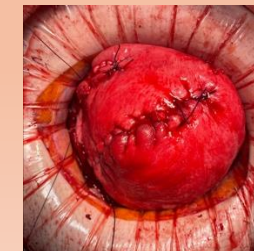


Procedure

Laparotomy was performed and Huntington's technique was unsuccessful with inadvertent avulsion of the right round ligament. Incision was made at the anterior uterus, to release inversion, carefully trying to avoid cystectomy.



Retained placental tissue was debrided from the endometrial interface and the uterus was repaired. Patient required extended post-operative stay with successful trial of void 14 days post-partum.



Discussion

Complete replacement of uterine inversion is imperative in minimising risk due to ongoing haemorrhage, and delayed management can complicate subsequent operative methods.

References:

1. Robson S, Adair S, Bland P. A new surgical technique for dealing with uterine inversion. Aust N Z J Obstet Gynaecol. 2005;45(3):250-1.
2. Macones G. Puerperal uterine inversion. In: UpToDate [Internet]. Waltham (MA): UpToDate Inc.