Uterine inversion in a low-risk woman in a regional hospital setting

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BACKGROUND

Uterine inversion is when the fundus of uterus inverts into the uterine cavity resulting in the uterus either partially or completely turned inside out. It is a rare complication that can occur during labour or postpartum in a vaginal delivery or abdominal caesarean. It is life threatening with 15% of cases resulting in death as it can cause significant haemorrhage and shock when the uterus is unable to constrict to stop bleeding due to the endometrium being stretched. There are four classifications; 1st degree (incomplete) – the fundus remains in the cavity, 2nd degree (complete) – the fundus goes through the os, 3rd degree (prolapsed) – the fundus goes beyond the introitus, 4th degree (total) – the uterus and vaginal are inverted. The pathogenesis is not completely understood due to inconsistent evidence. Examination will commonly show a non-palpable fundus with abdominal pain, vaginal bleeding, urinary retention and mass protruding. A complete uterine inversion with severe postpartum haemorrhage is the most common presentation.

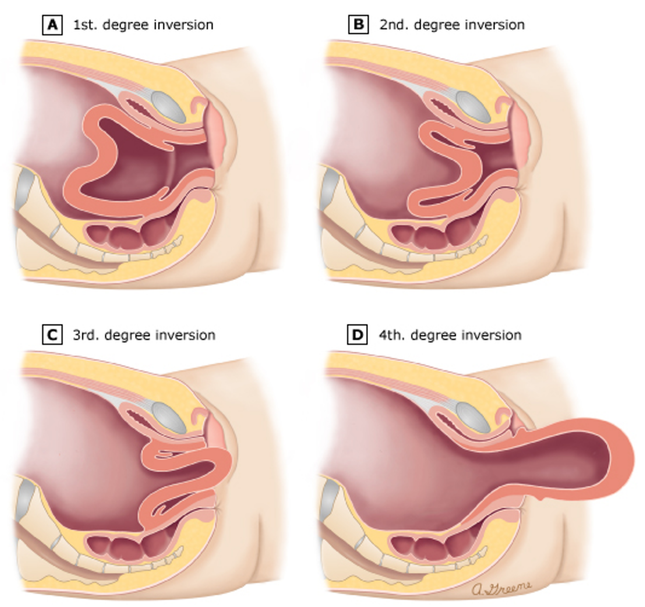
CASE

A 33-year-old female G2P1 at 41w had an induction of labour for postdates in an otherwise well woman with no medical issues. She had a previous normal vaginal birth at term with no complications. She had an uncomplicated pregnancy with a vaginal birth. She received active 3rd stage management and the placenta was delivered completely with controlled cord traction after 15 minutes. The patient had severe lower abdominal pain and the fundus not was palpable abdominally, minimal bleeding was present. Vaginal examination confirmed a type 2 uterine inversion. She was booked for emergency theatre. The patient had a precipitous post-partum haemorrhage of 2.5L. The massive transfusion protocol was activated and she was taken to the operating theatre for an emergency EUA with Johnsons Manoeuvre to replace the uterus. Uterine atony followed which was treated with fundal massage and uterotonics. She received 4U of PRBC, 4U of cryoprecipitate and fresh frozen plasma in theatre. She was debriefed the next day and recovered well in the postpartum period. At the 6 weeks follow up she had no ongoing concerns.

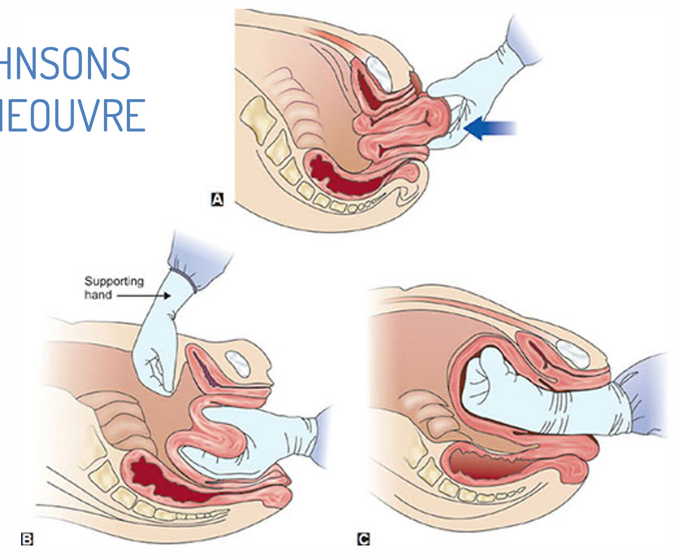
DISCUSSION

Early recognition of this obstetric emergency is critical as the cervix will begin to contract around the inverted uterus, making it difficult to replace. If unable to palpate the fundus or in the presence of severe low abdominal pain it is important to complete a vaginal examination. Rapid escalation and treatment can reduce the blood loss as patients often have a significant post-partum haemorrhage due to atony. Often the placenta is still attached but not in this case. If the diagnosis of uterine inversion is made while the placenta is still attached, best practice is to replace the uterus prior to manual removal of the placenta and initiating uterotonic agents. There is a risk of delay in treatment in a regional hospital especially at night if night staff are required to be called in and open a theatre. Initial replacement can occur in the birth suite using Johnsons Manoeuvre. If repositioning is not possible theatre for a reattempt and tocolysis can be used in combination with a Bakri balloon to prevent re-inversion if the uterus remains atonic.

CLASSIFICATION



JOHNSONS MANEOUVRE



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