Ultrasound and saline infused sonography as valuable tool to assess uterine integrity

Abstract

Introduction: Ultrasound is under utilised in assessing surgical complications such as uterine perforation resulting from surgical termination of pregnancy.

Method: We found one report in literature using the following search words: pregnancy termination, uterus, perforation and ultrasound.¹ The risk of perforation is considered low but the true incidence is unknown. The reported incidence is largely based on self-reporting and many perforations are not recognised.

Conclusion: A South Australian study reported the perforation risk following a surgical termination as 0.05% in the first trimester and 0.32% in the second trimester (13–20 weeks).

Keywords: perforation and ultrasound, pregnancy termination, uterus.

Figure 1: Transabdominal sagittal image during saline instillation demonstrating a steeply anteverted uterus and what appears to be a double endometrial cavity.

Case report

We would like to report an interesting case of a 35-year-old, G2 P0 referred for saline infused sonography. The patient had a past history of a complicated termination of pregnancy 10 years ago. She recalled being admitted to hospital for a week after the procedure due to complications and that she was unwell for at least two weeks.

The 2D grey scale imaging was unremarkable. During instillation of saline, it appeared as if there were two endometrial cavities, raising concern about a uterine congenital abnormality (Figure 1). Close inspection however, revealed a false passage postero-right with a relatively wide area involved (Figures 2–4). We postulate that this is evidence of uterine perforation associated with the curette 10 years ago. The position of the

uterus (anteverted, anteflexed) was most likely a contributing factor.

Discussion

This finding is interesting from a number of views, firstly our understanding about the healing process of a perforated uterus, and secondly the management of this finding. Further investigations such as a hysteroscopy would be unlikely to add additional information and most guidelines do not support correction of the defect in a now otherwise healthy patient. If a pregnancy is achieved, management should be similar to management of a scarred uterus; including exclusion of scar ectopic pregnancy, placenta accreta, consideration for earlier delivery to avoid uterine rupture, and avoidance

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Figure 2: Transvaginal sagittal mid-line image demonstrating echogenic air bubbles tracking from the endometrial cavity through the myometrium.

Figure 3: Transvaginal right sagittal image demonstrating echogenic air bubbles tracking from the endometrial cavity through the myometrium.

Figure 4: Transvaginal right sagittal image demonstrating echogenic air bubbles tracking from the endometrial cavity through the myometrium.

of tocolytic agents. Cheng and colleagues documented an interesting case of a surgical correction of a uterine defect in early

pregnancy – the defect resulted from a perforation following surgical complication. This is also an important reminder that the use of ultrasound decreases the risk of complications when performing a surgical termination of pregnancy.^{1,2,3,4}

References

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