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A rare incidental intraoperative finding of decidualised posterior uterine wall tissue during caesarean section: A Case report and Abstract

Abstract:

Decidualisation is a progesterone-driven transformation of the endometrium that supports implantation and pregnancy. While intrauterine decidualisation is physiological, ectopic decidualisation of endometriotic lesions is rare, poorly understood and has significant clinical implications. We present the case of a 39-year-old woman with endometriosis, adenomyosis, and two previous caesarean sections. During an elective caesarean at 39+2 weeks, a highly vascular lesion was discovered on the posterior uterine wall. Histology confirmed decidualised endometriotic tissue. The intraoperative bleed was controlled (estimated blood loss: 900 mL), but severely extensive suturing increased the risk of future adhesions and surgical complications. Ectopic decidualisation may remain asymptomatic and undetectable on antenatal imaging, while potentially mimicking malignancy or placenta accreta. Proposed mechanisms of decidualisation include progesterone resistance in endometriotic tissue, chronic inflammation, and variations in progesterone receptor expression. Reported complications include unexpected haemorrhage, hemoperitoneum, bowel perforation and acute surgical presentations such as pseudo-appendicitis. Although decidualisation of ovarian endometriomas has been reported in up to 12% of cases, involvement of the uterine wall remains exceptionally rare. In our case, antenatal imaging was unremarkable, highlighting diagnostic challenges and the importance of intraoperative awareness. Existing literature is limited, with only a handful of similar cases reported. This case underscores the importance of considering ectopic decidualisation as a differential diagnosis in pregnant women with endometriosis, particularly in the context of intraoperative haemorrhage. Increased awareness, case reporting, and multidisciplinary collaboration are essential to ensure prompt recognition and management of this rare but clinically significant phenomenon.

Biography

Dhwani Gandhi is a Foundation Year 3 doctor currently working in Surgery, with a strong interest in obstetrics and gynaecological surgery, as well as peri- and post-operative care. Together with Dr. Emilie Jewitt, she completed foundation training within the St Helens and Knowsley Teaching Hospitals NHS Trust, under the supervision of consultant Ms. Angharad Bidder in Obstetrics and Gynaecology in 2025. Both Dr. Gandhi and Dr. Jewitt are passionate about medical education and quality improvement. They are currently leading an audit within the Obstetrics and Gynaecology department at Whiston Hospital, focusing on optimising antibiotic protocols during pregnancy and the post-operative period. Through their work, they aim to enhance both patient care and overall clinical practice.