**ABSTRACT**

**BACKGROUND:** Cutaneous endometriosis (CE) is rare and its dermoscopic features were reported only in 3 patients. The aim of this study was to examine a case of pigmented CE with multiple non-invasive imaging techniques, to compare the obtained images with histopathology and to define their utility in an early diagnosis of the disease. **CASE REPORT:** We performed dermoscopy, high-frequency ultrasound (HFUS), in vivo and ex vivo reflectance confocal microscopy (RCM) of a pigmented CE arising on the caesarean scar of a phototype IV patient, along with histologic studies. Dermoscopy showed a greyish background and a brownish pigmentation. HFUS shows well-demarcated anechoic areas corresponding to ectopic endometrial tissue at histopathologic examination. RCM and OCT only showed the alterations of the epidermis. **CONCLUSION:** High-frequency ultrasound could represent a very useful tool for an early diagnosis of CE and its usefulness could be tested in patients with unusual cyclical pain, even before skin lesion appearance. RCM allowed the visualization of skin surface modification due to underlying endometriotic tissue. Dermoscopy showed a new aspect that was probably related to the mix of blood extravasation (ie, greyish background) and epidermal pigmentation (ie, brown pigmentation). © 2018 John Wiley & Sons A/S. Published by John Wiley & Sons Ltd. **KEYWORDS:** caesarean; cutaneous endometriosis; dermoscopy; high-resolution ultrasound; reflectance confocal microscopy; scar

PMID: 29388271 DOI: 10.1111/srt.12431