

Umbilical Endometriosis: A New Dermoscopic Pattern

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Introduction

Endometriosis is defined as the growth of ectopic endometrial tissue outside the uterine cavity. Extra pelvic endometriosis occurs in 12% of women, and umbilical endometriosis, a rare presentation of extra pelvic endometriosis, occurs in 0.5%-1% of reported cases. Umbilical endometriosis is also known as Villar nodule as Villar first described the condition in 1886. Cutaneous endometriosis tends to settle on scars from surgical procedures (abdominal or pelvic surgery) such as hysterectomy, caesarean section, laparoscopy, or episiotomy. From a clinical point of view, it is necessary to establish a differential diagnosis with amelanotic melanoma, basal cell carcinoma, Sister Mary Joseph nodule, or pyogenic granuloma.

Case Presentation

A 45-year-old woman attended our dermatologic outpatient clinic complaining of a 4-months history of a solitary painless umbilical nodule. The bluish-green colored lesion had not

appeared on a previous scar. Any recent bleeding episode was ruled out. A complete medical history revealed long-term dysmenorrhea as the only relevant clinical finding. On dermoscopy, a central white reticular pattern on a violet background was observed (Figure 1A). No vascular structures, points, globules, or structures suggestive of a melanocytic lesion were observed. Histopathological examination was consistent with cutaneous endometriosis (Figure 1B). Complementary tests, including abdominal-pelvic CT and determination of cancer antigen 125 offered results within normal ranges.

Conclusions

There are few dermoscopic descriptions in the literature of cutaneous endometriosis [1,2]. The main dermoscopic findings and histopathological correlation are reflected in Table 1. There appears to be a difference in patterns depending on the phase of the hormonal cycle, as well as the depth of the lesion, histological subtype and phototype of the patient.

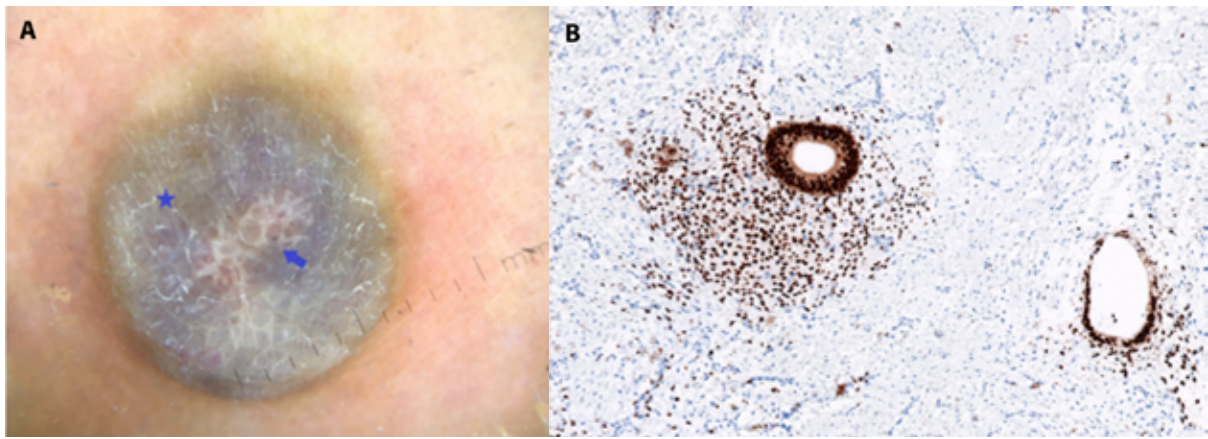


Figure 1. (A) Polarized dermoscopy shows central white reticular pattern (blue arrow) on a violet background (blue star) (DermLite DL4, $\times 10$). (B) Histopathology shows positivity for progesterone-receptor markers in endometrial glands and stroma (immunohistochemistry: anti-progesterone receptor antibodies; original magnification, $\times 100$).

Table 1. Dermoscopic Descriptions of Umbilical Endometriosis

Authors	Dermatoscope Model	Dermoscopic Features	Interpretation	Polarized Mode
De Giorgi, 2003 [3]	Heine-10	Homogeneous reddish pigmentation, regularly distributed, gradually fading to the periphery Small red globular structures (red atolls)	Multiple irregular glands with erythrocytes in a myxoid vascular stroma	Non-polarized
Jerez-Jaime, 2013 [4]	DermLite II Pro HR	Homogeneous reddish localized pigmentation, with no differentiated structures Amorphous brown area with normal skin network	Myxoid vascular stroma	Polarized light dermoscopy
Costa, 2014 [5]	DermLite DL3,	Polypoid projections of erythematous violaceous color, area with dark brown globules and area of active bleeding (mid follicular phase) Increased in both characteristics (luteal phase)	Endometrial atrophy Hemoglobin degradation after bleeding period, corresponding to hemosiderin deposits	Polarized light dermoscopy
Bonné, 2020 [2]	DermLite DL4	Umbilical endometriosis (polypoid structure) with drainage openings	Multiple irregular glands with erythrocytes and drainage openings	Polarized light dermoscopy
Sandoval, 2021 [6]	Unknown	Pink homogeneous lesion with a focal bluish blotch/clod	Hemosiderin deposits	Polarized light dermoscopy

White reticular pattern (negative pigment network) is due to elongated rete ridges and is characteristic of melanoma. Nevertheless, it has also been observed in Spitz/Reed nevi. The diffuse area of bluish color is likely related to hemosiderin deposits, unlike the referred deposits observed in other cases reported as small focused globules.

Histopathological examination remains the diagnostic gold standard for endometriosis. It is considered mandatory in ruling out a neoplastic condition, as more than 60% of umbilical tumors are malignant. The description of new dermoscopic patterns and their histological correlations can be helpful in the diagnosis of this entity.

Informed consent: Informed consent for publication of clinical details and clinical images was obtained from the patient.

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