Enigma of a Firm Umbilical Nodule

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A 34-year-old female presented with a history of single-raised lesion over her umbilicus for 2 months. The lesion was initially small to begin with and gradual progression to the present size was noted since a month. The patient gave a history of occasional pain over the lesion. There was no history of trauma or any history of surgery. No other significant history was elicited. Upon clinical examination, solitary, hyperpigmented, tender nodule of 2 × 2.5 cm size having firm consistency was seen over the umbilicus [Figure 1]. Dermoscopic examination (DermLite DL4, 3Gen, San Juan Capistrano, California, USA, ×10, polarized non-contact mode, images captured with Dermlite adaptor for iPhone 12 pro max) of the nodule was done, which revealed irregularly shaped dark brown areas, linear streaks of faint erythema over diffuse light to dark brown structureless areas with slight overlying brownish scaling [Figure 2]. Ultrasound examination of the nodules revealed well defined, heterogenous lesion of 20 × 24 mm in umbilical region, solid in nature with minimal spurts of vascularity without any extension to fascia and abdominal cavity. A biopsy of the nodule was taken and sent for histopathological examination [Figure 3].

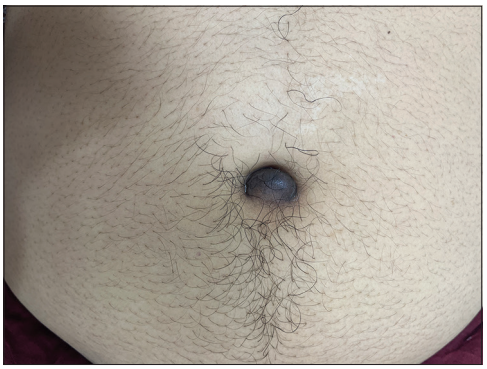

Figure 1: Solitary, hyperpigmented, firm nodule over umbilicus

Question: What is your diagnosis

Answer: Primary cutaneous endometrioma

Discussion

Histopathological examination of the nodule revealed unremarkable epidermis and benign endometrial glands with surrounding cellular stroma and extravasated erythrocytes in the deep dermis [Figure 3]. A final diagnosis of primary cutaneous endometrioma was rendered. The patient was referred to gynecology for further evaluation and complete surgical excision of the nodule.

Endometriosis is a benign, chronic disorder affecting 5–15% of females of reproductive age. Cutaneous endometriosis is an uncommon entity seen in less than 5% of all cases of endometriosis.[1] Cutaneous endometriosis can be divided into either primary or secondary type depending on the origin, with secondary cases occurring

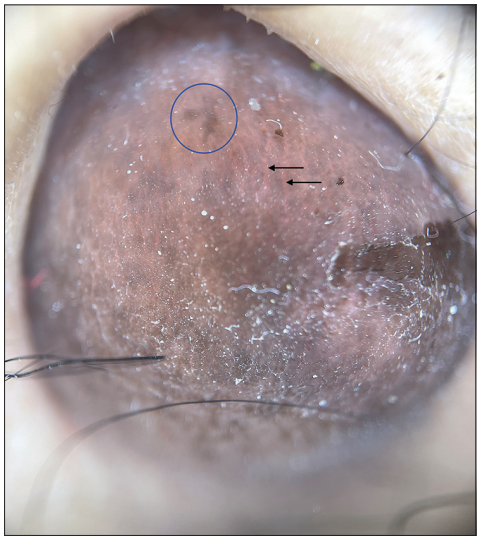

Figure 2: Dermoscopy showing irregular brownish areas (blue circle), linear areas of faint erythema (black arrows) over diffuse light to dark brown structureless areas. Overlying brownish scaling also seen. (DermLite DL4, 3Gen, San Juan Capistrano, California, USA, ×10, polarized non-contact mode)

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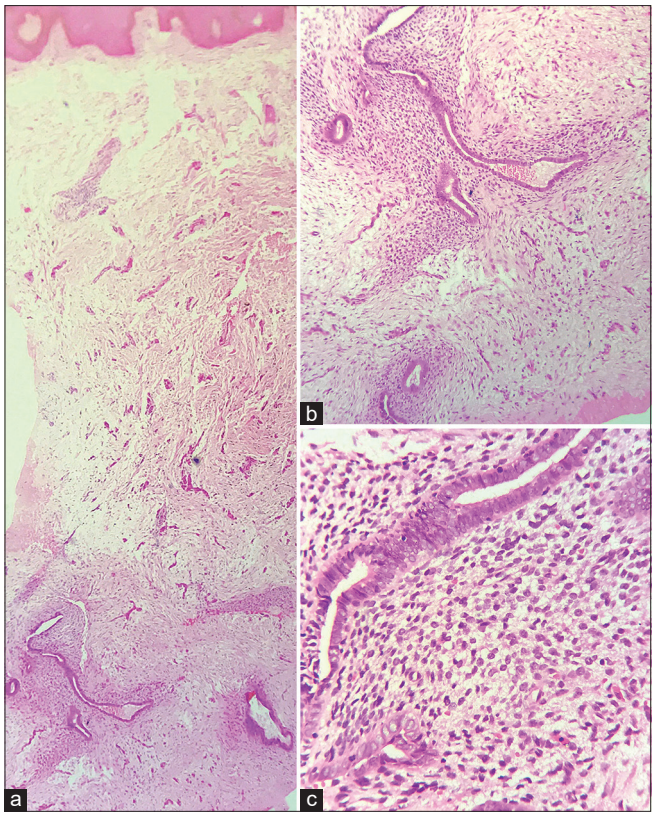

Figure 3: (a) The photomicrograph shows overlying epidermis with presence of glandular structures in the deeper dermis (H and E, 4×) (b) Higher magnification showing benign glandular structures in the deeper dermis containing erythrocytes surrounded by cellular and vascular stroma (H and E, 20×) (c) Further higher power shows these glands are lined with tall columnar epithelial cells with surrounding loosely woven cellular stroma containing extravasated RBCs (H and E, 40×)

because of inoculation of endometrial tissue into the abdominal wall post surgery.[2] When endometrial tissue arises in the skin without any preceding surgical procedure, it is classified as primary cutaneous endometriosis. Though etiology of the disorder remains largely unknown, metaplasia, vascular/lymphatic spread, or the role of umbilicus behaving like physiological scar has been postulated by some.[2] The patient can present with pain, bleeding during menses, or may be asymptomatic as well.[3] Lesions arising over or around umbilicus are challenging to diagnosis with the differentials to be considered include Sister Mary Joseph nodule (metastasis of abdominal cancer), cutaneous malignancy, cutaneous metastasis of internal malignancy, keloid, foreign body granuloma, hernia, congenital anomaly, lipoma, dermatofibroma, and abscess. Histopathology is the gold standard to make the diagnosis of cutaneous endometriosis showing presence of endometrial glands with hemorrhagic stroma in the surrounding tissue.[2] Dermoscopic findings of cutaneous endometriosis though unspecific have been reported to show a homogenous lesion with bluish blotch, polymorphous vascular pattern, a milky red or pink structureless area, and white lines.[1,4] Ultrasound can be done to rule out internal malignancy or hernia. Referral to gynecology department should be made to rule out other manifestations of endometriosis. When faced with an umbilical nodule, cutaneous endometriosis is one of the important differentials that needs to be kept in mind.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent forms. In the form, the patient(s) has/have given his/her/their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

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Conflicts of interest

There are no conflicts of interest.

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