Iatrogenic secondary umbilical endometriosis following laparoscopy

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Introduction: Description of umbilical endometriosis following laparoscopic ovarian cystectomy and withdrawal of hormonal treatment.

Presentation: 34-year-old female with a history of endometriosis underwent umbilical endoscopy to remove a left ovarian chocolate endometrial cyst, confirmed on histology. She received 6 months of gonadotrophic ablative therapy via Zoladex® implants, followed by 2 years of Qlaira® (dienogest), later withdrawn upon clear ultrasound follow-ups. Subsequently, dysmenorrhoea recurred accompanied by cyclical umbilical pain & bleeding, with appearance of a tender purplish nodule in the navel base (Fig 1). Several visits to her GP, which failed to spot the menstrual concomitance of symptoms, eventually led to a surgical referral for presumed umbilical hernia. Finding of an irreducible mass prompted MRI scans which reported a 2.4cm hyperintense umbilical nodule confined by the linea alba (Fig 2), with blooming on gradient echo. Appearance of left ovarian hyperintense foci also indicated endometriosis recurrence at the primary site of origin.

Fig 1. Umblical Endometriosis

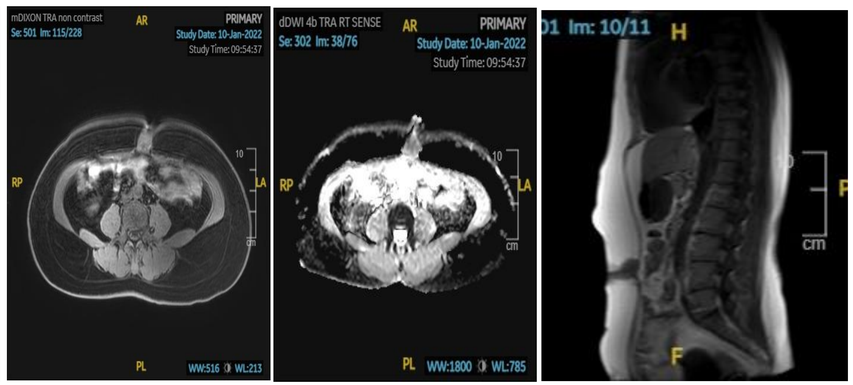

Fig 2. MRI transverse & coronal sections

Surgical resection (Fig 3) & histology confirmed umbilical scar endometriosis seeding from her laparoscopy 4 years previously. Hormonal therapy was reintroduced to prevent further recurrences.

Discussion: Although cutaneous deposition of ectopic endometrial tissue is rare (< 1%), the umbilicus is the favoured site relative to other skin areas (30 – 40%). Up to 25% of umbilical presentations will have concomitant pelvic involvement. It is postulated that endometrial tissue can disseminate via the lymphatic or haematogenous route, but direct migration via the round ligament or omphalomesenteric remnants may also occur. This case represents a secondary cutaneous form whereby laparoscopic removal of primary ovarian endometriosis has resulted in accidental implantation of residual tissue at the umbilical exit site. Histology comprises glandular mucinous columnar epithelia with tubular formations surrounded by eosinophilic stroma (Fig 4). Surgical wide local excision with umbilical reconstruction is curative with recurrence rare (assuming a good clear margin is achieved) & malignant transformation of endometriotic tissue even rarer. Hormone therapy relieves symptoms and together with gonadotrophic ablation can shrink lesions prior to surgery; albeit not curative hormonal therapy is also valuable as prophylaxis post resection, since its withdrawal may predispose to endometriosis recurrence as in this case.

Fig 3

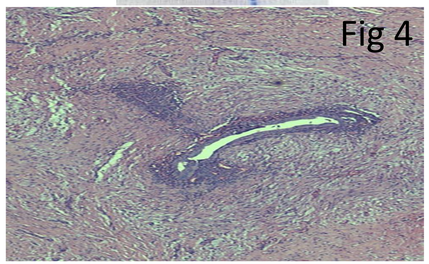

Fig 4

Conclusions: Umbilical endometriosis presenting as a nodule must be considered in childbearing age with a positive history and prior surgery predisposes to secondary deposition in the scar. Postop withdrawal of hormonal treatment also favours endometriotic recurrences at both primary sites or in any possible secondary deposits, so assiduous follow-up is necessary in such cases.