Cotyledonoid dissecting leiomyoma of the uterus: A case report

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Introduction

Cotyledonoid dissecting leiomyoma is one of the rare variants of uterine leiomyoma[1]. Also known as Sternberg tumour, it is characterised by extrauterine, placental-like spongy growth with an irregular dissecting intramural component[2]. The unusual features of this benign tumour - exophytic bulky mass, lobulated pattern on ultrasound and unusual macroscopic appearances of the resected specimen - necessitates accurate diagnosis to ensure appropriate treatment[3].

Case history

A 36-year-old woman with previous left salpingoophorectomy presented with abdominal distension and menorrhagia. An ultrasound scan identified a complex right ovarian mass and a 'strange' fibroid. A total abdominal hysterectomy with right salphingo-ophorectomy and histopathological examination was performed to ascertain the nature of the fibroid.

Pathological findings

Macroscopically, the specimen comprised of uterine corpus and cervix measuring 85 x 60 x 40 mm with an attached right fallopian tube 60mm in length. There was a pedunculated, partly solid and partly cystic mass attached to the anterior aspect of the uterine corpus. The mass had a lobulated outline with oedematous and cystic areas including haemorrhagic, spongy areas resembling a placenta. There was no necrosis. The mass was continuous with the lower part of the uterine corpus and extends into the myometrium. No further myometrial lesions were seen.

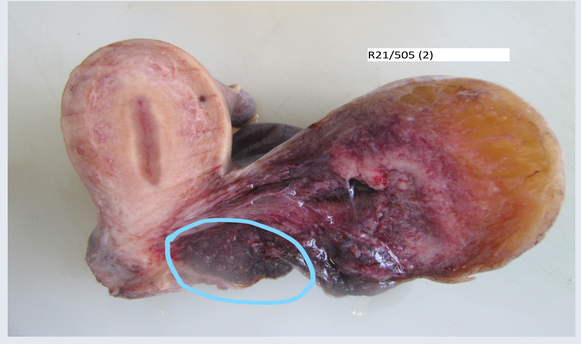
Microscopic examination showed fascicles and nodules of bland smooth muscle cells with areas of hydropic change containing prominent congested vessels. A component of mature adipocytes was present. There was no coagulative necrosis, nuclear atypia or increased mitotic activity. No intravascular growth was identified. The gross and microscopic features were consistent with a dissecting cotyledonoid leiomyoma.

Discussion

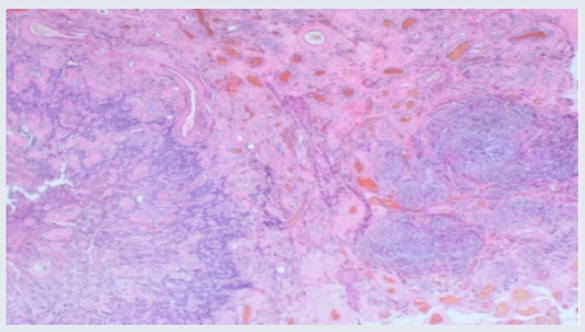
Several growth patterns of uterine leiomyoma have been described, including cotyledonoid dissecting leiomyoma which was first reported by Roth *et al*[2]. This case featured the typical gross and microscopic findings of cotyledonoid dissecting leiomyoma: cotyledonoid appearance, dissecting growth, oedema, perinodular hydropic degeneration, and increased vascular density with multiple congested blood vessels. Two cases of cotyledonoid dissecting leiomyoma with adipocytic differentiation have been reported, and the present case shows a similar feature with focal areas of mature adipocytes[4].

Due to the unusual appearnces of the uterine mass on ultrasound, some of the differential diagnoses considered include leiomyosarcoma and low-grade endometrial stromal sarcoma[4]. Overall, although cotyledonoid dissecting leiomyoma is one of the rare variants, more cases are being reported and accurate recognition of the macroscopic and histological features should allow accurate diagnosis without the need for ancillary studies. Because the clinical and radiological differential diagnoses of this tumour include malignant entities, accurate diagnosis is valuable both to the patient and clinician.

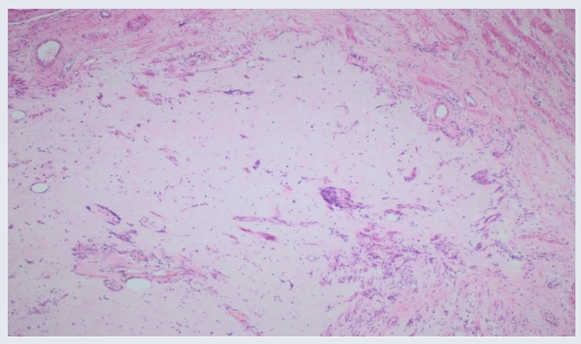
The uterus and right adnexa, with the pedunculated mass anteriorly (lower aspect of the image)



Sagittal section showing congested, oedematous areas. A cotyledonoid area is marked.



Nodular growth pattern of benign smooth muscle cells with surrounding vascular congestion.



Area of marked hydropic change surrounded by oedematous stroma containing scattered vessels

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