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Smooth muscle tumour of uncertain potential (STUMP) manifesting as Bartholin Cyst

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Background

Smooth musde tumours of uncertain malignant potential, or STUMPs, are rare smooth musde tumours with histological features between benign and malignant classifications, and with potential for malignancy (1). They have predominately been described as intrauterine manifestations. Most recently, a case of labia majorum STUMP was reported in 2017 (2). Bartholin cyst STUMPs are previously unrecorded.

Case details

A 48-year-old with an 8-week history of vulval lump presented to the emergency department 1 week after attempted Bartholin Cyst drainage by her GP. Her past medical history was notable only for a previous LLETZ procedure for abnormal cervical screening testing, with subsequent clearance. She had a marsupialisation of the Bartholin cyst, and was discharged without issue.

She represented 2 weeks later with increasing pain and ongoing bleeding from her surgical site. Repeat washout with suturing of bleeding sites and biopsy was performed. Histopathology identified a myxoid smooth muscle lesion with high mitotic count (3-8/2mm^2), focal moderate atypia, and no coagulative necrosis.

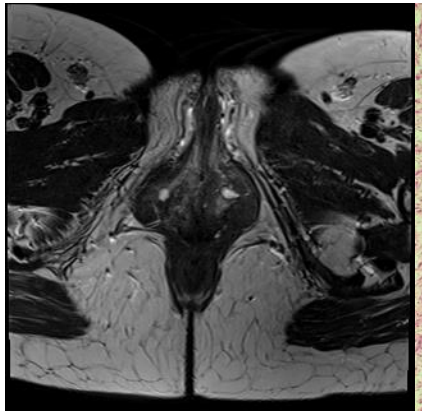

Figure 1: T2-weighted MRI with bilateral small Bartholin cysts and mild bulbospongiosus musde hypertrophy

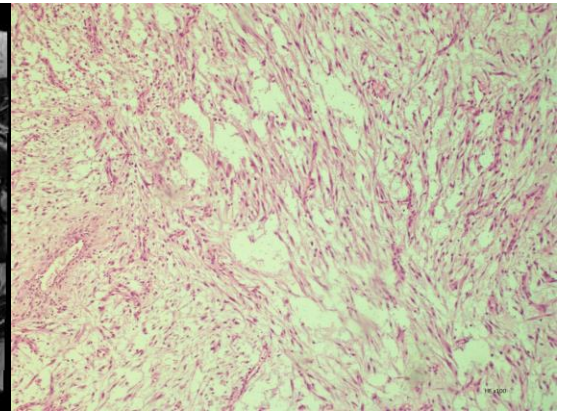

Figure 2: HE staining (10x) spindle cell morphology

Immmunohistochemistry was positive for smooth muscle antigen (SMA), p53, p16, desmin and progesterone/oestrogen receptor (PR/ER). Opinion was sought interstate and the conclusion was a STUMP. The patient's follow up was undertaken with tertiary gynaecology-oncology services with serial examinations and MRIs. The patient is currently well and discharged.

Discussion

The rarity of STUMPs limits their pathological and clinical characterisation in the literature. By their definition, they are diagnosed with intermediate findings on the Stanford histological grading for uterine tumours, which assesses nuclear atypia, presence of mitoses and coagulative necrosis (3). Their evolution likely mirrors that of leiomyomata with similarities to leiomyosarcoma in PR/ER profiles, microRNA and p53 expression (4). Metastases for uterine STUMPs have been described as a rate of 8-12% with involvement of peritoneum, retro-peritoneum, pelvic organs, liver, humerus and lungs (5, 6). Uterine STUMP survival rates with metastases have been reported as 92% at 5-years (7). The prognosis and recurrence of Extra-uterine STUMPs is poorly described. Treatment for vulval STUMP has successfully included wide local excision.

In conclusion, extrauterine STUMPs represent a diagnostic dilemma with clinical implications. Increased recognition and research is required to adequately characterise and treat this condition.

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