Rare finding of a giant ischioanal lipoma

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This manuscript has been read and approved by all authors. It contains a case report and discussion (word count 725 words) and three figures.

Ethical standards: This case report complies with the current laws of Australia.

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Case Report: Rare finding of a giant ischioanal lipoma

A 54 year old lady presented to the colorectal clinic with a 12 month history of an increasing lump in her buttock, with symptoms alternating between faecal urgency and obstructed defaecation during this period.

She had no history of PR blood loss or weight loss. Her past history included an appendicectomy, previous bladder sling operation and two vaginal deliveries. Her last colonoscopy was two years ago, and was reported to be normal. She was otherwise in good health. There was no family history of colorectal cancer.

On examination, there was a palpable, soft swelling in the left ischioanal area, which was palpable externally and on digital rectal examination (DRE). There was no abnormality of the rectal mucosa.

She was investigated with anal manometry and pudendal nerve latency testing, computed tomography (CT) and Magnetic resonance imaging (MRI) of her pelvis. Manometry confirmed normal anal tone, with evidence of left pudendal nerve neuropathy. The pudendal nerve latency was 2.0 ms on the right side and 3.2 ms on the left (Normal <2.6 ms). Pre-operative anal resting pressure (mean 50

mmHg, maximum 75 mmHg) and squeeze pressure (97 mmHg, maximum 111 mmHg) were both normal.

Colonoscopy did not reveal any mucosal lesions. CT scan and MRI revealed a 12 x 6 x 5cm well circumscribed, encapsulated, fat containing soft tissue density in the left ischiorectal space, elevating the left levator muscle. It had mass effect, displacing puborectalis and the anal canal to the right. There was no imaging evidence of rectal obstruction. Its overall appearances were suggestive of a lipoma.

Given her symptoms and increasing size of the mass, she underwent operative excision of this lesion. Operative technique involved making a hemi-circumferential incision in the ischioanal space with the patient in the prone position. The external anal sphincter (EAS) was identified and dissection remained lateral to it. The EAS was followed up to the levator muscle. The lesion shelled out with a combination of blunt and sharp dissection. It had gross appearances in keeping with a lipoma. The pudendal bundle was identified and preserved. The lesion was completely removed and the wound was closed primarily over a drain tube. The patient made an uneventful recovery. She did not have any perianal numbness, bladder or bowel dysfunction post-operatively. As she did not report any symptoms post operatively, no formal post-operative anal manometry and nerve latency testing were undertaken.

Histology confirmed the lesion to be a large lipoma.

The ischioanal fossa is a pyramidal space bordered by the anal canal medially, obturator internus with its overlying fascia laterally, the levator muscle superiorly, the transverse perineal muscles anteriorly and the skin of the perineum inferiorly¹. Tumours of the ischioanal space are very rare, with published literature largely based on case reports, and small case series²⁻⁴. Tumours in this region usually present as perineal or labial masses. Large lesions that compress the rectum or urogenital organs can cause symptoms such as constipation, dysuria, dyspareunia or obstructed defaecation⁴⁻⁷. Tumours can be congenital, acquired or neoplastic.

Congenital lesions include gardner's cysts, epidermal cysts, tailgut cysts and hamartomas. These are benign lesions, that have characteristic appearances on MRI, and have little malignant risk⁵. Neoplastic lesions range from lipomas, teratoma, angiomyxoma, nerve sheath tumours and sarcomas. Metastases to the area are exceedingly rare. Teratomas are generally seen in the neonatal population. Lipomas are benign, with similar signal to surrounding subcutaneous tissue. However, they can be difficult to differentiate from well-differentiated liposarcomas on imaging alone¹.

Due to the depth of these lesions, diagnosis cannot be made on clinical grounds alone. Imaging test are vital to diagnosis. If the lesion is superficial, ultrasound is useful to assess vascularity and proximity to surrounding structures. For deeper lesions MRI or CT is preferred. MRI is superior to CT due to superior soft tissue contrast enhancement and differentiation^{1, 5}. Core Biopsy is useful in differentiating malignant from benign lesions. In the case of the patient above, a benign core biopsy would not have excluded a well-differentiated liposarcoma.

Ischioanal fossa lesions are very rare, with no clear guidelines on management. Imaging is vital to aid diagnosis, as clinical assessment is usually inadequate to confirm the diagnosis. MRI is the preferred modality for deeper lesions, and it provides good soft tissue enhancement. If imaging and biopsy are unable to exclude malignancy, surgical excision, usually via the posterior approach is the mainstay of treatment.

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Figures

Fig. 1(a-c). MRI scan showing the soft tissue mass in the left ischioanal fossa. The mass effect is pushing the anal canal to the right. The dashed white lines demonstrates the lipoma with a 'dumbbell' component extending posterior to the anal canal. The white arrow in (c) is the anal canal.

Fig. 2(a-d). Intra-operative images demonstrating exploration of the left ischioanal fossa. Fig.2a-2c demonstrates the lipoma shelling out in its entirety. 2d demonstrates the intact external anal sphincter.

Fig 3(a,b). Fig. 3a demonstrating specimen post removal. The path of the anal canal has been shown, with the 'dumbbell' component extending posterior to the anal canal. Fig.3b showing the closed ischiorectal wound.

fig 1_new.tif

fig.2.tif

fig.3_new.tif

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