Glomus Tumor in the Groin Mimicking an Inguinal Hernia

Ambikavathy M, Kumar S

Corresponding Author: Ambikavathy M, Associate Professor, Department of Surgery, Vydehi Institute of Medical Sciences and Research Centre, Bangalore-66
e-mail: ambikaashri67@live.com, Mobile: 9980337428

Abstract

Glomus tumor is an uncommon lesion constituting 1-2% of soft tissue tumors. These tumors are usually seen in the subungual region and nail bed of the upper and lower extremities and are very painful. Occasionally glomus tumors are found in unusual sites. We report a case of a 65 year old male patient who presented with a painless solitary inguinal swelling which was initially diagnosed as an inguinal hernia with bladder as content. On exploration a large loculated cystic swelling was seen. Histology confirmed it as glomus tumor.

Keywords: Glomus Tumor, Inguinal Region, Atypical Sites.

Introduction

Glomus tumors are known to arise from the perivascular smooth muscle cells of the glomus body present in the dermis of the skin which is involved in thermoregulation. They are painful swellings occurring in the subungual regions and may be solitary or multiple. Occasionally these tumors are seen in unusual sites, cutaneous and extracutaneous, and may be misinterpreted. We report a case of 65 year old male patient who presented with a painless solitary inguinal swelling which was initially diagnosed as an obstructed inguinal hernia. At surgery a large loculated cystic swelling was seen, histology confirmed a glomus tumor. We report this case for its unusual site of presentation and rarity.

Case History

A 65 year old male patient presented with a three year history of a painless swelling in the right inguinal region. He gave a history of gradual increase in size of the swelling. He complained of dragging sensation in the right groin after taking food and on micturition. There was no history of trauma to the groin. The swelling was irreducible.

On clinical examination a swelling of size 11x6 cms was noticed in the right groin, which was non tender and soft in consistency. Cough impulse was absent, transillumination test was positive and differential diagnosis of encysted hydrocele of the cord / obstructed inguinal hernia with bladder as content was made. The patient was evaluated further. All routine investigations were within normal limits. When ultrasound scan of the groin showed a large inguinoscrotal cystic swelling measuring approximately 6 x 10.7 x 8.5 cms with 300 cc of clear fluid, a probable diagnosis of an encysted hydrocele of the cord was made.
The patient underwent surgery under spinal anaesthesia through a conventional right inguinal incision. Operative findings were a large cystic swelling popping out just below the skin incision enclosed in a very delicate capsule and small blood vessels over it, measuring 13 x 7 cms with clear mucoid fluid. The cystic swelling was excised after meticulous release from neighbouring structures, the plane of swelling was subfascial and weighed 400 gms (Figure 3).

3,4. Our operative diagnosis was that of lymphatic cyst. The histopathology report was as follows:

Sections showed dilated spaces intervened by fibrous delicate septa. Focal clusters of round cells with punctuate nuclei and scanty cytoplasm was seen. The stroma showed edema and myxoid change. No lymphoid cells were seen. Imp: Glomus Tumor with extensive myxoid change (Figure 5,5a).

Immunohistochemistry was positive for smooth muscle actin, vimentin and cytokeratin (Figure 6). The patient was discharged on the 6th postoperative day and is on regular follow up with no recurrence till date.

**Discussion**

Glomus tumor is an uncommon soft tissue tumor and is classically seen in the subungual region. It is known to occur at any age with a female preponderance.1,2 Glomus tumors are known to occur as single or multiple blue-red nodules. These tumors are very painful and tender, a classical feature of glomus tumor. Surprisingly our patient had a painless swelling. Clinical diagnosis is not very difficult when the tumor is small and situated in the usual sites as subungual region.3,4 They can be confusing with large swellings presenting in unusual sites leading to misdiagnosis;
as in our case the tumor looked like a inguinal hernia. Literatures have reported unusual sites such as stomach, small bowel, female genitals, bone, oral cavity etc. With a wide variety of histological features they are grouped into three main types (a) vascular form (b) myxoid form, and (c) solid form.

Depending on the cell types they are classified as (a) glomus tumor with predominant glomus cells, (b) glomangiomas with blood vessels, and (c) glomangiomyomas with smooth muscle cells. Our case fits into the myxoid type.

Although glomus cells are histologically diagnostic of glomus tumors, it has to be complimented by immunohistochemistry. Glomus tumors are positive for actin and vimentin and negative for desmin. The various modalities of treatment are laser, sclerotherapy and intralesional injection of hypertonic saline. Malignant transformation can occur, hence follow up is mandatory. Surgical excision is curative in solitary tumors. Total excision with the capsule reduces recurrence rate.

Conclusion
Glomus tumor can occur in unusual sites in the cutaneous and subcutaneous plane. The differential diagnosis of cystic lesions should include glomus tumor. Glomus tumor can present as a large swelling when compared to the conventional 1-2 cms nodular or plaque like lesions. Surgical excision is the treatment of choice and is curative in solitary glomus tumors. Malignant transformations are known to occur, hence regular follow up is mandatory.

End Note
Author Information
1. Ambikavathy M, Associate Professor, Department of Surgery Vydehi Institute of Medical Sciences and Research Centre, Bangalore-66, e-mail: ambikaashri67@live.com, Mobile: 9980337428
2. Kumar S, Department of Medicine, Vydehi Institute of Medical Sciences and Research Centre, Bangalore-66

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References