EXTRADIGITAL GLOMUS TUMOUR IN SCAPULAR REGION

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HOW TO CITE THIS ARTICLE: Syed T, Pottangadi R, Sadanandan AN, et al. Extradigital glomus tumour in scapular region. J. Evolution Med. Dent. Sci. 2017;6(50):3872-3874, DOI: 10.14260/Jemds/2017/836

PRESENTATION OF CASE

A 76-year-old male patient had presented with history of backache for the last 15 years with features of pain even with mild touch (such as while wearing shirt). He had this complaint more than 15 years back and was operated twice; at tertiary care hospital on one occasion and secondary care hospital on another occasion at one-year interval. He later had persistent pain similar in character to what he had before surgery and used to take OTC analgesics occasionally for pain relief and had considered it 'incurable and his fate.' The treatment details were not available with the patient and could not be traced. On examination, there was an oblique linear surgical scar over inferior angle of right scapula, around 3 cm in length with faint reddish macule present over inferior and lateral aspect (at distal end of scar), which was tender and hypersensitive to touch and cold. Rest of the scar was nontender. The surrounding skin appeared normal with no induration or collection. He had no other site with similar hypersensitive lesion. Examination of Spine, Shoulder and Scapula were within normal limits.

Figure 1. Clinical Picture of Patient's Back- Right Scapular Region, Circle Enclosing the Oblique Surgical Scar with Arrow Pointing to the Macule

DIFFERENTIAL DIAGNOSIS

At such presentation, differential diagnoses, which were considered were glomus tumour, neuroma, haemangioma or a hamartoma.

Financial or Other, Competing Interest: None.

Submission 16-04-2017, Peer Review 10-06-2017,

Acceptance 16-06-2017, Published 22-06-2017.

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DOI: 10.14260/jemds/2017/836

CLINICAL DIAGNOSIS

Ultrasound examination of the local part, though initially was thought as not feasible due to extreme hypersensitivity was ordered after discussing with patient. This revealed a well-defined cystic lesion measuring 7 mm x 4 mm with thick echogenic content noted in subcutaneous plane of right scapular region. No significant vascularity was however noted. MRI was not done, as patient could not afford.

Figure 2. Ultrasound showing the Lesion- 7 x 4 mm, just Deep to Skin, in Left Upper Quadrant of Picture

He was planned for excision biopsy of the lesion under general anaesthesia. After intubation, patient was placed in semi-prone position with right shoulder on top and pillow under the chest. After sterile draping, a 4 cm long elliptical incision was placed to include the scar and the macule with at least 2 - 5 mm of skin margin around the lesion and scar. Incision was extended to subcutaneous tissue, deep enough to include the lesion in toto and skin with the lesion excised. The skin was sutured after haemostasis. The well-defined pale brown lesion measuring around 5 mm x 5 mm was confirmed to have been removed completely and was bisected to assess macroscopically and send in toto to Pathology Department for histopathological examination. The patient made an uneventful recovery and sutures were removed at 2 weeks' time.

Figure 3. Excised Specimen, Bisected

PATHOLOGICAL DISCUSSION

Histopathologic section showed skin with the dermis showing a well-circumscribed lesion composed of tight convolutes of mainly thin-walled and occasionally thick-walled, dilated, congested blood vessels of varying sizes surrounded by collars of glomus cells. These cells were rounded with sharply punched-out, rounded nucleus and a clear to amphophilic cytoplasm. Periphery of the lesion showed a rim of collagen containing blood vessels. There was no evidence of atypia, mitosis or necrosis. Adjacent dermis appeared unremarkable. Findings suggested Classic (sporadic) Glomus tumour. Post-op 9 months patient is asymptomatic.

Figure 4. Low Power and High Power Microscopic View

DISCUSSION OF MANAGEMENT

Glomus tumour is a benign neoplasm, malignant cases are extremely rare.^[1] It arises from Glomus body in subcutaneous tissue. Most common site is the subungual area,^[2] affecting more females than males [M < F= 1:2].^[3] Extradigital presentations are rare and often misdiagnosed, and they occur with more frequency among males, (M > F).^[4] Here, we have reported an extradigital Glomus tumour in scapular region.

Glomus tumour was first described by Wood^[5] and was later explained in detail by Masson.^[6] Glomus body is Neuromyoarterial canal system, which is responsible for blood flow to skin and thermoregulation.^[7] Glomus tumour usually presents with the triad of- i) High temperature, ii) Sensitivity, iii) Pain and localised tenderness.^[8,9,10]

WHO has subcategorised Glomus Tumour into Three Types:

Solid Type

Most common variant with scarce vasculature and minimal muscle component.

Angiomatous Type

Ganglioma, predominantly vascular.

Glomangiomyoma

Predominantly vascular and smooth muscle components.

Most common location is digits of hand. Extradigital sites are rare and have been reported in shoulder, scapular region,^[11] elbow,^[12,13,14] forearm,^[15,16] wrist,^[17] palm, thigh,^[1,18,19] knee,^[20,21,22] foot,^[23,24] toes,^[23,25] stomach,^[26] colon,^[26] larynx,^[27] posteroinferior lung,^[28] mediastinum,^[29] intramuscular, intravascular,^[30] intraneural, cervix, penis and

bone,^[31,32,33,34,35,36] arm,^[36] buttock,^[36] leg,^[37] ankle,^[36] back,^[36] nose,^[36] cheek,^[36] ear lobe^[36] and trachea.^[36]

Extradigital glomus tumours are difficult to diagnose as they do not present with classical triad. Pain is due to local hyperplasia of neuroangiomatous tissue, resulting in a tumour which causes pain either by mechanical or thermal stimulus. There is increase in intracapsular pressure due to contraction of myofilaments of glomus cell and this increase in pressure causes pain, which is carried by unmyelinated nerve fibres. Differential diagnoses for glomus tumour should be kept in mind which are neuromas, haemangiopericytomas, angioleiomyomas, haemangiomas and hamartomas of cutaneous adnexa. There is 12 to 33% of recurrence of solitary tumours.^[37] MRI is a valuable imaging modality in occult suspected lesion, where ultrasonographic scan is not helpful.^[38] Malignancy is to be considered if the tumour size is more than 2 cm or located deep or on histological evidence of atypical mitotic figures with moderate-to-high nuclear grades, more than or equal to 5 mitotic figures per HPF.^[39]

FINAL DIAGNOSIS

The final diagnosis in this patient can thus be said to be Extradigital classic (sporadic) Glomus tumour in scapular region. Proper history, careful examination, appropriate investigation and early diagnosis and treatment are required for a good functional outcome. Patient with extradigital glomus tumour of scapular region can be confused with scapular, shoulder or spinal pathology. So, in any case of localised painful lesion with hypersensitivity and local raise of temperature, glomus tumour should be considered as differential and should be confirmed by excision biopsy.

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