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Ophthalmology

A RARE CASE REPORT OF GLOMUS TUMOUR OVER MARGIN OF LOWER LID OF LEFT EYE

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ABSTRACT **Introduction:** Glomus tumours are rare, benign tumours of vascular origin, arising from the glomus body. Glomus tumours are neoplasms of mesenchyme derived from glomus bodies. Glomus tumours present as a purple or pink vascular lesion that can be confused with a vascular neoplasm such as hemangioma. In this case we are reporting a rare presentation of glomus tumour over lower lid. **Case Report:** A 10 year old female child presented with lesion over left lower lid since 3 months which was painless and progressive. On examination a 0.3x0.3 cm subcutaneous pink non encapsulated mass is seen over medial canthus of left eye. Mass was excised and subjected to histopathological examination which confirmed the diagnosis of glomus cell tumour(glomangioma). Postoperative period was uneventful with no recurrence for last 6months. **Conclusion:** All excised eyelid lesions should undergo detailed Histopathological evaluation and glomus tumour should be considered as one of the differential diagnosis in patients presenting with eyelid mass.

KEYWORDS : Glomus tumour, eyelid mass, non encapsulated mass, stratified squamous epithelium

INTRODUCTION

Glomus tumours are rare, benign tumours of vascular origin, arising from the glomus body, which is an arteriovenous structure with function of thermoregulation. Most commonly glomus tumours are seen in hand, wrist, foot and under fingernails.[1] In rare instances, the tumours may present in other body areas, such as orbit. Glomus tumours are neoplasms of mesenchyme derived from glomus bodies. The glomus bodies are located between the venous and arterial systems in the subungual dermis of the digits. The function of glomus bodies is to regulate temperature in response to surrounding temperature changes. Glomus tumour presents as a purple or pink vascular lesion that can be confused with a vascular neoplasm such as hemangioma. Earlier, they were considered as a variant of angiosarcoma, later they described glomus tumours as histologically similar to smooth muscle cells of the normal glomus bodies and considered them under the category of smooth muscle tumours.[2] In this, we present a case of 10 year old female child with history of lesion on lower eye lid.

Case Study

A 10 year old female presented to ophthalmology opd of DR. D.Y.PATIL HOSPITAL, KOLHAPUR with a history of swelling noticed over left lower lid since 3 months which was painless. Patient's mother elaborated the complaint that swelling had been increased in size gradually over last 3 months. There was no history of any trauma. Best corrected visual acuity in both eyes were 6/6. On local examination, a non-tender, firm, reddish lesion with smooth surface over medial canthus of the left eye was observed. No signs of inflammation were present and overlying skin was normal in appearance. It was neither adherent to skin above nor to the structure underneath. Rest of the ocular examination of anterior and posterior segment of left eye was normal.

Provisional diagnosis of left eye lowerlid hemangioma was made. Patient underwent excision of mass under local anesthesia after proper medical fitness.

Intra operatively, a 0.3cm x 0.3cm subcutaneous, pink, non-encapsulated mass was seen. The base of the mass was ligated and the mass was completely excised.

Histopathological examination of the tissue specimen showed tissue lined by stratified squamous epithelium. Subepithelium shows a well circumscribed mass with sheets and trabeculae of round to oval cells having prominent nucleus and moderate amount of eosinophilic cytoplasm. The background shows hyaline material. Few endothelial lined capillary sized blood vessels are noted. The histopathological findings disproved the provisional diagnosis of hemangioma and gives definitive diagnosis as glomangioma(glomus cell tumour). Postoperative period was uneventful without any evidence of recurrence for last 6 months.

Fig 1 Non-tender, firm, reddish lesion with smooth surface over medial canthus of the left eye, measuring 0.3x0.3 cm subcutaneous, pink, non-encapsulated mass

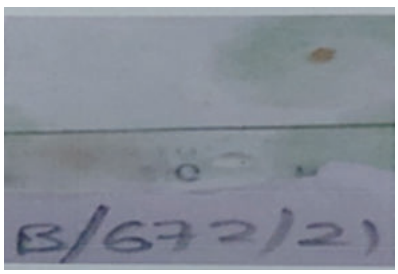

Fig 2 Tiny pale white tissue bit measuring 0.2 cms

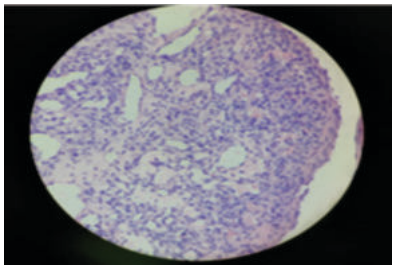

Fig 3 A well circumscribed mass with sheets and trabeculae of round to oval cells having prominent nucleus and moderate amount of eosinophilic cytoplasm

DISCUSSION

Glomus tumours are perivascular benign neoplasms usually seen in the 3rd and 4th decade young adults. Glomus tumours arise from the glomus body, which is an arteriovenous anastomosis surrounded by smooth muscle cells. These are mostly seen in distal extremities of the body. The most common site of presentation is subungual region of the fingers. Presentation of glomus tumour in orbit are seen rarely. Few cases of orbital glomus tumours have been reported in the past which were presented as orbital swelling with progressing proptosis. Besides orbital presentation very few cases of tumours in the eyelids have also been reported in the past.[3]

The occurrence of glomus tumors in the eyelid is rather rare and it may be suggestive of the presence of glomus bodies in the lid, which has not been confirmed yet.

In 1941, Kirby reported first case of glomus tumor which presented as an eyelid mass. Cases reported earlier characteristically described this lesion as a bluish/violaceous soft spongy mass in the eyelid. In another case of glomus tumor, a tender firm mass was described. In our case, we came across an eyelid mass with an atypical presentation as a firm swelling with no discoloration.[4] Unlike in the last-mentioned case where the mass was painful, growth in our patient was non tender.

Microscopically glomus tumour is composed of three components – glomus cells, blood vessels and smooth muscle cells. Subtyping depends on the proportion of 3 components:
Solid glomus tumour:
- Glomus cells predominant.
- Cuffs of uniform glomus cells forming nests or trabeculae and surrounding thin walled vessels.

Glomangioma:
- Vessels predominant
- Cavernous hemangioma-like vasculatures surrounded by small clusters or rare layers of glomus cells.

Glomangiomyoma:
- Vessels and smooth muscle cells predominant.
- Showing gradual transition from glomus cells to smooth muscle cells.

In this case histopathology findings shows glomus cells along with endothelial capillaries suggestive of glomangioma. Histopathological findings disproved our provisional diagnosis of a hemangioma. Definitive diagnosis of a glomus tumour requires histopathological examination and immunohistochemistry. Management of glomus tumour is complete surgical excision. The recurrence of tumour after excision is very rare. It becomes mandatory for all excised eye lid lesions to be subjected to histopathological evaluation failing which, rare tumours can go undocumented. Therefore, glomus tumours can be considered as one of the differential diagnosis in patients presenting with an eyelid mass.

CONCLUSION:

All excised eyelid lesions should undergo detailed Histopathological evaluation and glomus tumour should be considered as one of the differential diagnosis in patients presenting with eyelid mass.

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