



TO REPORT A CASE OF INTRAORBITAL NEOPLASIA POST EVISCERATION, CO-PRESENTING WITH A PAROTID GLAND TUMOR

Ophthalmology

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ABSTRACT

A 62-year-old male presented with a rapidly proliferating, fungating, painless mass in the left eye since 10 days along with a painless swelling in front of the left ear since 20 days. The patient had undergone evisceration in the left eye 2 years back post-traumatic injury. There were no records of prior clinical or fungal examinations, histological findings, or radiological studies. A hetero-intense polypoidal lesion in the left orbit with no extension to the brain was discovered using T2 weighted MRI. In the parotid gland, cystic metastases were observed. Incisional Biopsy was suggestive of Squamous cell carcinoma. The patient was scheduled for left orbital exenteration. Squamous cell cancer was confirmed by an excision biopsy. Follow-up revealed no evidence of a local recurrence. The occurrence of neoplastic growths in post-eviscerated eyes points towards the essential role of pre-operative radiological investigations, fundus & histopathological examination reveals masquerading neoplasms. A thorough and careful pre-operative evaluation prevents the spillage of tumor cells.

KEYWORDS

Squamous cell carcinoma, Metastasis, Evisceration.

INTRODUCTION

A diverse category of neoplasms is known as orbital tumors. Better knowledge of their classification and therapeutic implications is made possible by a systematic approach. Tumors that develop in the orbit are divided into three categories according to where they originate. Primary neoplasms are those that develop in the orbital tissues or structures themselves; secondary neoplasms spread to the orbit from nearby structures like intracranial tumors and tumors of the paranasal sinuses; and metastatic neoplasms.[4]

Histologically, the primary orbital neoplasms can be broken down into the following groups: tumors of the lacrimal gland, tumors with mesenchymal differentiation, tumors arising in the orbital bones, lymphoproliferative and hematopoietic neoplasms, tumors originating in the optic nerve sheath, and tumors of unknown etiology.

Although orbital tumors are uncommon, the enormous variation in clinical symptoms and findings makes it difficult for the ophthalmologist, who is commonly consulted as a last choice. The results of the initial examination should enable a rough calculation of localization (intra/extracanal), kind of growth (expansive/infiltrative), integrity (vascular/solid, etc.), and threat to visual functions if the patient history and clinical signs are worrisome for an orbital mass. With the aid of an adequate initial diagnostic pathway, the radiologist can be asked a specific inquiry and the disciplines needed for an interdisciplinary workup can be chosen, allowing for early treatment.[3]

Around 0.1% of all tumors and around 18% of all orbital disorders are tumors, respectively. The orbital neoplasms can be primary, secondary (infiltration from nearby structures), or metastatic (from distant structures). Orbital neoplasia is classified histologically into three types: benign, benign but locally aggressive, and malignant.

Neoplastic growths in post-eviscerated eyes are an uncommon occurrence, and they may indicate the importance of pre-op radiological examinations and post-op histological analysis of the eviscerated eye. The course of action may be changed if choroidal or ciliary melanomas, which might masquerade as neoplasms, are found in eyes that are scheduled for evisceration. This further inhibits accidental tumor cell from spilling into nearby tissues. The future course of treatment and the amount of metastasis, if any, can be determined by a focused histological evaluation of the samples.

MATERIAL AND METHODS

Case Details:

A 62-year-old male presented to our OPD with the complaint of an

intraorbital mass in his left eye since last 10 days. The mass was initially small in size, rapidly proliferating, painless, polypoidal in appearance, and not associated with any discharge or bleeding. The patient had complaints of redness discharge and Diminution of vision since two years. The patient had undergone eye surgery Evisceration)2 years back as a management for expulsive choroidal hemorrhage post perforated corneal abscess. The patient also complained of a swelling on the back of his head since 2 years and a swelling in front of the left ear since 20 days.

Examination of the Right Eye (OD) revealed a visual acuity of Counting fingers up to 1 foot. A Diffuse N-M stromal corneal opacity was present over the pupillary area. An esotropia of 45 degrees was present with a restriction of ocular movements. An immature senile cataract was present.

Examination of the left eye (OS) revealed a polypoidal septate mass protruding from and occupying the entire left orbital cavity. Septae divided the pink-colored tumor mass into 4-5 lobules with a few necrotic and crusted areas. The lid margins were pushed open by the mass and appeared detached from the tumor mass. No fresh bleeding points or pus points were observed.



Figure 1



Figure 2a and 2b



Figure 1

Figure 1 Left eye Intraorbital polypoidal mass. Figures 2 a,b,c, and d show lobulations and free lid margins. Figure 3 Right eye Esotropia with a diffuse corneal opacity over the pupillary region.

Examination of the swelling in front of left ear: A 3cm x 3 cm swelling was present over the parotid gland region which was single, well-defined, firm in consistency, mobile, and non-tender with normal overlying skin. Transillumination present. Facial palsy was also present.

Examination of the swelling on occiput: A solitary 2 cm X 2 cm swelling was present a few cm above the occipital protuberance. The swelling was soft in consistency, non-tender, freely mobile, well-defined margin, and had normal skin overlying it.



Figure 4a and 4b

Figure 4 shows the firm, parotid gland swelling.

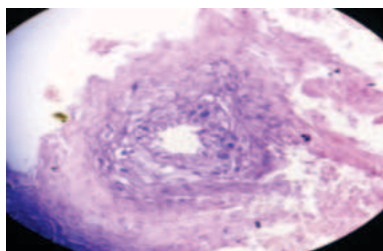


Figure 5 occiput swelling.

Diagnosis And Management:

Orbital computed tomography (CT) demonstrated an ill-defined hetero-dense lesion of approx. size 3.1 x 3.5 x 3.4 noted in the left orbit, margins of lesion appear in lobulated. The proximal part of the left optic nerve appears thickened and irregular likely suggestive of infiltration of the lesion into the left optic nerve. However, no bony invasion was noted. Neoplastic etiology was suspected.

The left eyeball was not visualized thus agreeing with the history of evisceration/ enucleation. The right eyeball appeared irregular posteriorly giving a suspicion of posterior staphyloma.

The Bony calvaria appeared normal. The CT scan also described the parotid swelling as an Incidental finding of a well-defined cystic lesion of approx. size 2.8 x 2.4 x 3.2 noted in the superficial parotid lobe, suggestive of cystic metastasis. Ultrasonography study dedicated especially to the parotid swelling revealed approx. 32x 24 mm sized well-defined cystic lesion in the left lobe of the parotid with no evidence of internal vascularity within solid and no adjacent infiltration. The lesion gave a suspected impression of a likely benign neoplastic lesion suggestive of pleomorphic adenoma with a predominant cystic component. Figure 5: Histology suggestive of Squamous cell carcinoma

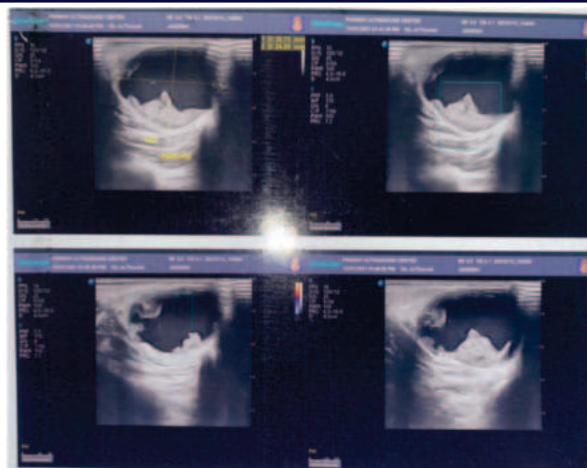


Figure 6

RESULT

A 62-year-old male presented with a 20-day history of parotid gland lump and a 10-day history of left intra-orbital mass. The patient had gotten a Non-contrast CT of the head done, revealing a hetero-dense lesion in the left orbit with a thickened left optic nerve. The right orbit was suggestive of posterior staphyloma. USG of the parotid gland confirmed the presence of a parotid swelling with a predominant cystic component. The patient was then admitted to our facility and was planned for a left orbital exenteration. A pre-operative incisional biopsy was suggestive of squamous cell carcinoma. Contrast MRI of head and Neck.

DISCUSSION

Evisceration: favoured surgical option. Disadvantages are the risk of sympathetic ophthalmia and dissemination of intraocular tumors. Incidence of a diagnostic surprise following evisceration: 0.62%. Unsuspected intraocular tumors are underrepresented in the literature owing to medicolegal concerns.

6 steps to prevent evisceration surprises:

- (1) a thorough clinical history and diligent examination
- (2) appropriate imaging;
- (3) enucleation in lieu of evisceration when a tumor cannot be ruled out
- (4) careful intraoperative evaluation
- (5) routine histopathology of eviscerated tissues;
- (6) appropriate treatment if malignant intraocular tumor is found. [1]

CONCLUSION

Blind painful eyes may harbor an occult malignancy. To rule out malignancy, imaging, and histopathological examinations should be utilized. A preferable alternative is enucleation or orbital exenteration [2]. If neglected, intraoperative histology and surgical modification (conversion to orbital exenteration or enucleation) [1] is required.

The occurrence of neoplastic growths in post-eviscerated eyes is a rare phenomenon and may point towards the essential role of pre-op radiological investigations and histopathological examination of the eviscerated eye post-op. Radiological Investigations in eyes planned for evisceration can reveal any masquerading neoplasms such as choroidal or ciliary melanomas thus altering the course of action. This further prevents inadvertent spillage of tumor cells in surrounding tissues. A dedicated histopathological examination of the specimen can rule out atypical tumor cells thus determining the future line of treatment and extent of metastasis, if any.

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