Dermoid Cyst of the Orbit : An Unusual Presentation

Dr. Richa Verma¹, Dr. Navneet Sharma¹

MD Radiodiagnosis

DOI: 10.15520/jmbas.v8i2.209

Accepted 1 February 2020; Received 15 January 2020; Publish Online 5 February 2020

Reviewed By: Dr. Daniel V.

ABSTRACT
Dermoid cysts of the orbit are uncommon orbital tumours that occur primarily in the pediatric population. They are divided into deep and superficial lesions with deep lesions presenting later in life. Depending on the location, size, the patient may present proptosis, diplopia, and restriction of eye movements. We describe a case of a dermoid cyst involving the lateral aspect of orbit of an adult presented with unusual complaints. A 17 years old female presented with complaints of presence of hair along superior palpebral fissure and itching right eye for one month. This clinical picture pointed towards the diagnosis of dermoid cyst. USG and CT scan were preformed and diagnosis of dermoid cyst was confirmed.

Key words: Dermoid cyst–orbit–orbital tumours.

1 INTRODUCTION
Dermoid cyst is an ectodermal inclusion cyst that can occur anywhere in the body, but its occurrence in orbit is relatively rare. In adults, orbital dermoids are more likely to present with bone erosion, and therefore they should be considered in the differential diagnosis for orbital and frontal bone lesions extending into the frontal sinus. They usually present with upper eyelid swelling, proptosis, diplopia and restriction of eye movements. We describe a case of orbital dermoid presenting with unusual complaints.

2 CASE REPORT
A 17 years old female presented with complaints of presence of hair along superior palpebral fissure and itching right eye for one month. There was no history of any swelling, trauma to eye or any allergy. On clinical examination, there was not any obvious swelling along upper eyelid. After retracting the upper eyelid, there was a pinkish yellow fleshy conjunctival swelling measuring approximately 8.0 x 4.5 mm present along superior palpebral fissure and lateral canthus of right eye. Few hair follicles and hair were also visible along inferior part of this swelling Figure 1. clinically, possibility of dermoid cyst was kept and USG and CT scan was done to confirm the diagnosis.

On USG, there was a small ovoid echogenic swelling present along lateral corner of right eye Figure 2. CT scan orbit was done to confirm the presence of fat in this swelling. CT scan orbit revealed a fat density (CT attenuation -90 HU) lesion measuring 6.5 x 5.0 mm along superolateral quadrant of right orbit abutting right lacrimal gland Figure 3. There was not any bony defect or erosion seen along bony orbital wall.

Based upon clinical and imaging findings, final diagnosis of dermoid cyst was made.

3 DISCUSSION
Dermoid cysts represent congenital cystic benign tumours and belong to choristomas which originate from aberrant primordial tissue. [1] Choristomas are benign tumours that are formed during the embryonic development from the tissues we do not normally expect to be there. During such
an embryonic development and formation of the embryonic skull and orbit suture, dermal or epidermal elements remain compressed and form cystic formations with a constant tendency to enlarge and progress. [2]

It may occur anywhere in the body, but its occurrence in the orbit is relatively rare. Dermoid cysts occur in three primary locations in the head and neck: the frontotemporal region, the periorbital region, and the nasoglabellar region. [3] Dermoid cysts, account for about 3-9% of all orbital masses and 0.04-0.6% of primary orbital tumors. [4] The frequent site of origin is the superotemporal quadrant of orbit and the parasellar and frontobasal region are the most common intracranial sites. [5]

Clinical presentation of orbital or intracranial dermoid cysts depends on the location, size, and associated abnormalities of cyst. Orbital dermoid cysts located superficially in and around the orbit present as subcutaneous or subconjunctival discrete well-circumscribed swellings in childhood. Larger cysts that abut the globe or cysts that are located deep in the orbit may displace the globe and can compress the optic nerve and extraocular muscles leading to proptosis and restriction of eye movements. [6]

Some atypical presentations of dermoid in the past have drawn our attention. One is the case of an orbital floor dermoid presented with progressive, painless swelling in the lower eyelid associated with mild proptosis of three months duration. [7] Another unusual presentation of orbital dermoid cyst causing superior oblique muscle palsy in a child was reported. [8] Atypical presentation of dermoid as conjunctival mass was reported in one case in a case series of four atypical dermoids. [9] Our case presented with unusual complaints without any swelling in upper eyelid. The location of the dermoid was typical at superolateral quadrant but, it presented as conjunctival mass with presence of hair and hair follicles.

The differential diagnosis of orbital cysts include choristoma (epidermoid, dermoid, dermolipoma), teratoma, the congenital cystic eye, and colobomatous cyst. Imaging modalities such as ultrasonography, computed tomography scan, and MRI of the dermoid cyst are valuable in the diagnosis and characterization of benign lesion and also to demonstrate their intraorbital and intracranial extension. [10]

### 4 CONCLUSION

The present case is unusual in few aspects, as presented as conjunctival mass with presence of hair and hair follicles without any externally visible eyelid swelling. This clinical picture points towards the diagnosis of dermoid cyst. Imaging studies like USG, CT scan or MRI can be done to confirm the diagnosis preoperatively.

### REFERENCES