Abstract: A 8 year old girl had presented to us with squinting in the right eye of 1 month duration. MRI revealed a well circumscribed mass in the superonasal orbit for which an anterior orbitotomy was performed and the mass removed in toto. Histopathological examination revealed a pure chondroma. Chondromas are rare, benign tumors.

Keyword: Orbital Chondroma, Chondroma, Cartilagenous tumor

CASE REPORT:
A 8 year old girl was brought to our clinic with her mother complaining of squinting in her daughter's RIGHT EYE of 1 month duration. The patient had no complaints and specifically denied pain, decrease in visual acuity or diplopia. There was no previous history of eye disease or trauma to the eye or orbit. The patient was otherwise normal and healthy. On examination her best corrected visual acuity in both eyes were 6/6. Pupillary reactions were normal. Extra ocular movements in the RE showed elevation restriction. On palpation a firm, smooth immovable non-tender mass was noted superonasally in the Right Eye. Fundus examination was within normal limits. MRI orbits done, revealed a well defined ellipsoid solid space occupying lesion of size 14x12x10mm in the superomedial extra conal space compressing superior oblique tendon with mild orbital bone remodelling. The patient was subjected to a RE anterior orbitotomy procedure and mass was removed in toto 3 days after the removal of the mass, and on relieving the compression the tumor was causing the extra ocular movements became full in the right eye.

Anterior orbitotomy being performed
Gross examination of the mass removed revealed a pearly white, smooth surfaced mass. Histopathological examination by Haemotoxillin and Eosin staining revealed lobulated, hyaline, cartilaginous structure formed by chondrocytes in lacunae with focal area of cells with large nuclei and spindling in the periphery was seen. The above indicating a diagnosis suggestive of Chondroma.

Gross examination showing a pearly white mass
Chondrosarcoma was ruled out as it showed a well-encapsulated structure with cartilaginous tumor with the mass formed by chondrocytes with chondroblastic appearance and mature hyaline cartilage with no evidence of malignant changes.

H&E staining showing chondrocytes and chondroblasts with mature hyaline in 20x magnification.
DISCUSSION

Pure Chondroma of the orbit is rare. They are usually found in association with fibrous, bony or a myxomatous component. The only area of the anterior orbit where pure cartilage is found is the trochlear fossa of the nasal angle of the orbital roof. Chondroma is a benign tumor composed of mature hyaline cartilage. Chondromas are usually asymptomatic except for either a palpable or a visual mass. Chondroma has a bluish tinge and a semilucent density. Each small single chondrocyte has its own lacunae and the nucleus is round and regular.

Complete surgical excision is the primary treatment for this benign and rare neoplasm with no capacity to malignant transformation and recurrence is unlikely.

References: