

Inferior Rectus Pyomyositis- A Rare Case Report

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Abstract: *Pyomyositis is acute primary bacterial infection of skeletal muscle. Any skeletal muscle can be involved with least chance to extra-ocular muscle. A healthy 17 years old male presented to the OPD with chief complain of sudden onset of pain, swelling and redness and diminution of vision and diplopia in right eye for 4 days duration. CT scan orbit showed a typical hypodense rim enhancing lesion involving the right inferior rectus muscle. Intra-venous Co-amoxyclav was initiated and symptoms were started to improve after 2 days.*

Keywords: Pyomyositis, Extra-ocular muscle, Diplopia, Co-amoxyclav, Intra-venous

1. Introduction

Pyomyositis is an acute bacterial infection of muscle. It was first described in 1885 by Scriba as an endemic disease in tropics[1]. A skeletal muscle abscess usually occurs in the thigh and trunk muscles and is most commonly caused by *Staphylococcus aureus*[2]. However it is very rare for an extra-ocular muscle abscess to occur[3]. Most common presentation is pain, redness, swelling and restriction of eye movements. Systemic symptoms may or may not be present.[4]

2. Case Report

A healthy 17 years old male presented to the OPD with chief complain of sudden onset of pain, swelling and redness and diminution of vision in right eye for 4 days duration. He also complained of painful eye movements and diplopia for same duration. He gave no past ophthalmic history. On examination he had a visual acuity of 6/18(OD) and 6/6(OS), normal colour vision OU.

Right eye ball was proptosed by 2 mm. Inferior bulbar conjunctiva was congested and chemosed. Extra-ocular muscle movements were restricted in all gazes more in inferior gaze in right eye.(See Fig.1)



Figure 1: Chemosis of inferior bulbar conjunctiva



Figure 2: Restriction of ocular movement

Pupillary reaction were normal(OU) and choroidal fold was present in macula of right eye.

His vital parameters were checked and all were normal. CECT of orbit showed thicker peripherally enhanced abscess (15 mm X 10 mm) along the right inferior rectus muscle which extends into inferior retro-orbital space.(See fig. 3)

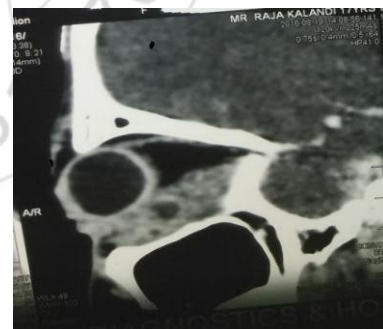


Figure 3: Right inferior rectus muscle abscess in sagittal section.

Routine blood examination revealed leukocytosis (TLC-15,600/cumm) and random blood sugar was 76 mg/dl. He was started on intravenous Co-amoxyclav 1.2gm thrice daily.

Vision improved to 6/12 with disappearance of choroidal folds, proptosis reduced to 1 mm after 2 days of treatment. After 7 days of treatment, vision improved to 6/6 and there was no proptosis..But mild extra-ocular muscle movement restriction persisted. He was shifted to oral Co-amoxyclav therapy for another 7 days.

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3. Discussion

There have been no case reports of pyomyositis involving extra-ocular muscle from north-east India. Acharya I et al. published a case series of 4 patients suffering from pyomyositis of extra-ocular muscle. Both children as well as adults were affected. They managed all the cases with surgical intervention along with intra-venous antibiotics. Staphylococcus aureus was found to be as aetiological agent in 3 out of 4 cases [5].

Agius M de B et al presented a case report of an idiopathic right lateral rectus muscle abscess in a 16 years old healthy male. They managed the case conservatively with intravenous antibiotics [6]. We also managed the patient conservatively. Ultrasound-guided drainage was not done in our case due to rapid improvement in the patient's symptoms and signs within 48 hours of treatment.

Possible differential diagnoses include:

1. Idiopathic orbital inflammatory disease
2. Orbital cellulitis
3. Ruptured dermoid cyst.

Both CT and MRI can be used as investigative tools in this circumstance. However since MRI gives no radiation exposure and is better to study soft tissues, it is the investigation of choice.

During treatment careful follow up should be done at least twice daily to detect intra-ocular complications such as Optic Neuropathy, Central Retinal Artery Occlusion as well as intra-cranial complications like cavernous sinus thrombosis and cerebral abscess.

4. Conclusion

Pyomyositis of extra-ocular muscle should be regarded when patients of any age present with sudden onset orbital inflammation along with characteristic imaging finding. It can be managed conservatively if antibiotic therapy is initiated very early. Surgical drainage is essential in case of non-improvement as well as to find the aetiological agent.

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