



Ox tail post traumatic Nocardial Keratitis Rare Case Report

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Abstract

This is rare case report of unexpected sudden accidental Ox tail trauma, to the eye which gives corneal abrasion along with epithelial defects, superficial Infiltration develops in a ring like wreath pattern which is typical of nocardial keratitis. This microbial organism keratitis misleads with other type of keratitis. Early identification with clinical suspicion and exact lab investigation helps to avoid haphazard treatment in initial stage.

Proper diagnosis of nocardial keratitis guide for better treatment & for better visual prognosis.

Keywords: Ox tail, Nocardia.

Purpose

To know the presence of causative organism in unexpected ocular trauma by the Ox tail and its challenging management.

Material & Method

Farmer of age 56 years taking his ox outside from the pond he pushed the ox by hand. Suddenly ox moves his tail rapidly and the farmer had sudden unexpected trauma to his left eye like hunter. He brought the ox out of pond. He had pain, watering and he is unable to open the left eye, he wash his face with clean water and attend the local doctor, who gave ciplox eye drop and pain killer tablets. He had no relief, pain is increasing now he had foreign body sensation, redness, watering and swelling of the lids, he attend medical college eye OPD on fourth day on examination of left eye shows lid oedematous small healed abrasion at upper eyelid below the centre of eye brow.

Conjunctival congestion, circumcorneal congestion present, Cornea shows white nebular to macular opacities in superior temporal portion. Small abrasion 2X1mm in size at 2 o'clock position other multiple opacities, run in curved line, single, satellite like opacity below the pupil nodal point. There is no vascularisation, or perforation of cornea. Anterior chamber normal in depth no abnormal contents. Or hyphema, pupil semi dilated traumatic mydriasis iris c & p wall, lens shows immature cataract changes. Fundus examination due to hazy media faint view of optic disc, macula and periphery.

Iop digitaly within normal limits. Corneal sensation in left eye slightly decreased fluorescein corneal staining negative, sac syringing patent vision in left eye counting finger 5 meters. RE 6/12 with ph 6/9, ocular examination of right eye unremarkable. slit lamp examination LE shows superficial nebular to macular multiple opacities

like infiltrate along with this central satellite opacity, near the curve line, no evidence of kps, hyphema. Corneal scraping send for Koh preparation to rule out fungal keratitis. but report shows no evidence of fungus. On 18 th day SLE shows white infiltration of nebular to macular in size are multiple and found to be arranged in the form of ring patchy opacities With irregular margins like wreath pattern, no new satellites formed near the old infiltrations this patchy anterior stromal infiltrate of white color of pinhead size to macular opacity arranged in curved line wreath pattern is typical characteristic of nocardial keratitis as clinical impression. Again corneal scraping done and send to lab investigations report suggestive of gram positive acid fast bluish branching beaded filaments (acid fast 1% stain & 1% sulfuric acid is used in the smear) It is very strange to see the report of nocardial organism. In this case species was not identified due to limitation of lab facility Figure 1.



Fig 01

Management of this microbial keratitis. Old age man with decrease resistance power had sudden unexpected accidental trauma by ox tail develops traumatic keratitis which was treated on the first day with 0.3% ciprofloxacin eye drop and tablet Ibuprofen plus twice daily (bd). But the farmer had no relief of pain in left eye as he came to hospital on fourth day after examination he received oflox 0.3% eye drop along with homatropine eye drop bd Natamycin eye drop bd pad is given to left eye after repeat investigation

an and suspicion of diagnosis he was reexamined on 18 th day he was suspected to be a case of nocardial keratitis, after complete one month period he received proper treatment topical fortified amikacin eye drop 14 mg/ml three times day for 15 days then tapered bd, along with this albucid sulphacetamide eye drop given bd and flurbiprofen eye drop bd, orally he received cap bacicloxacin 500mg bd and tablet vit c 500mg od Figure 2.



Fig 02

After about one & half month period the white infiltrative opacities found to be decreased in size, no appearance of new satellites, the macular size opacities remain as it is the central papillary area become cleared. The treatment of fortified amikacin eye drop, albucid eye drop and flurbiprofen eye drop kept for two and half month period .

Discussion

Old man with poor resistance power had unexpected ox tail trauma to his left eye the organism directly transmitted over the surface of cornea. Early presentation like fungal, viral keratitis misleads the treatment high degree of clinical suspicion & correct lab investigation helps in diagnosis and treatment of nocardial keratitis. Nocardia are gram positive acid fast aerobic, appearance of pin head size to macular raised lesions forming patchy infiltrate in the anterior stroma part with irregular margins arranged in wreath pattern is characteristic of nocardial keratitis.

Fungal keratitis is usually characterized by dry raised slough with stromal infiltrate with feathery edges, satellite lesions exudates it can be differentiated from ring shaped acanthamoeba keratitis.

Conclusion

Accidental ocular ox tail trauma is rare case report. Post traumatic presence of nocardial keratitis is strange. Complex of other keratitis need differentiation with high clinical suspicion and proper early diagnostic test gives good prognosis and save the eye with good vision.

Unusual presence of nocardial organism due to ox tail trauma directly inoculate the organism over cornea. Nocardia is slow growing & mimics with other type of keratitis and this misleads, which leads delayed treatment which makes prognosis slow. Complete corneal epithelialization was not occur, macular opacities slightly decreased in size the central corneal area become clear, improvement in vision with resolution of pin head size infiltration occur.

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