



Congenital retrobulbar abscess of unknown origin in a seventeen day old baby

KEYWORDS

proptosis ,neonate,retrobulbar abscess

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ABSTRACT *Retrobulbar abscess is a pocket of infection/ pus behind the eye. This infection can result from an infection of the mouth, teeth, sinuses or from systemic infections. This abscess can subsequently lead to proptosis. This infection can spread intracranially and lead to death. Hence it is important to diagnose retrobulbar abscess early and initiate prompt treatment.*

Retrobulbar abscess in a neonate is an extremely rare condition. Only 3 to 4 cases of retrobulbar abscess due to ethmoiditis or dacrocystitis have been reported from all over the world till now. There has been no reported case of congenital retrobulbar abscess from India. A rare case of congenital retrobulbar abscess in a 17 day old baby is reported here.

DISCUSSION

The most common causes of proptosis in a neonate can be of infective origin or a tumour.

A 17 day old neonate was brought to our casualty with complains of protrusion of right eye. Patient was apparently alright 5 days back, then the parents observed slight redness and protrusion of right eye. This was associated with mild degree fever with cold and nasal discharge. The patient was then showed to a pediatrician for the above complaints. The pediatrician prescribed antibiotics Extacef (cefixime), antipyretic syrup and tobramycin eye drops (qid) . After medication fever, redness subsided but proptosis did not reduce. Then the neonate was referred to our department. There was no history of eye discharge and trauma. No evidence of fever at present. Baby took feeds (breastfeeding) properly.

Patient was then examined by a pediatrician and no associated abnormality was detected. Antenatal, natal and postnatal history were normal.

Local examination showed Right eye Both lids slightly edematous. Proptosis present. Conjunctiva, cornea, iris – Normal .Pupil – not reacting to light.

Proptosis was non compressible and non pulsatile. It did not increase on crying. Eye movements were slightly restricted

Measurement of proptosis – R eye - 14 mm (Left eye – 4-5 mm)

Fundus – Disc – appeared vertically oval

Vessels – normal

Macula – normal

FR – present

L eye within normal limits.

Pediatric and systemic examination – Within normal limits.

Course of treatment –

Following detailed examination , the neonate was started on

Inj Megapen 150mg (75mg ampicillin + 75 mg cloxacillin) i.v 6 hourly along with Inj Amikacin 25 mg i.v 12 hourly and iv fluid Kidral P 150ml i.v 12hourly . The temperature, PR, RR and SPO2 were monitored at ½ hour interval. And blood for CBC , urea , creatinine was sent.

The baby was then reviewed on the next day. There was no improvement in the condition of the baby. A CT scan (plain and contrast) was then performed which showed hypodense , non enhancing right retrobulbar region with haziness of retrobulbar fat suggestive of right retrobulbar infective collection/ abscess. R bony wall of orbit appeared normal with no intracranial pathology.

Sinuses appeared normal. CBC ,urea , creatinine were normal.Chest X ray of the neonate was within normal limits. The radiologist suggested USG guided aspiration of the abscess.

So an anesthesia fitness was taken and USG guided aspiration of the retrobulbar abscess was done under short GA and 4 ml of peribulbar block by the radiologist assisted by the ophthalmologist.

Procedure of USG guided aspiration-

The procedure was performed under short GA and peribulbar block of 4 ml xylocaine 2 % with adrenaline. Strict aseptic precautions were taken.

The USG machine was Mindray DC 7 and high frequency linear probe was used. The probe was covered by a sterile glove and secured in place by simple rubber bands. Betadine solution was used as USG coupling agent. The abscess was approached with the help of 20 gauge i.v cannula inferolaterally under USG guidance, with the needle pointing slightly supero-medially. A window to approach the abscess was obtained by applying mild pressure on the globe from the lateral aspect with the help of probe. Once the cannula and stellate were inside the abscess , the stellate was withdrawn and with the help of 20 cc syringe around 3-4 ml of extremely thick greenish - yellow fluid was aspirated. Patient tolerated the procedure well, and was shifted to NICU following the procedure. Eye pad was applied. The fluid was sent for culture and sensitivity. i.v antibiotics and i.v fluids were continued.

Patient was reviewed the next morning .On examination lid edema, proptosis increased. Chemosis was present. The eye-ball appeared tense. The pupil was not reacting to light and fundus visualization was not possible. Local antibiotic eye-drops moxifloxacin was started QID along with a lubricating eye drops QID. Chloroapplicaps were started BD. Syrup T-98 was started 4 times / day. Eye padding was done to prevent exposure keratitis and i.v antibiotics were continued as before. Gram staining showed the presence of gram positive cocci.

On the 3rd postoperative day proptosis, chemosis and lid edema decreased. Pupil was reacting to light. Culture and sensitivity report showed gram positive cocci staphylococcus aureus (methicillin sensitive). The organism was sensitive to all antibiotics except co-trimoxazole and chloramphenicol. The same treatment was continued.

On the 7th postop day proptosis, lid edema was markedly reduced. There was no evidence of chemosis. Pupil was reacting to light. And the fundus appeared within normal limits. Repeat USG was done which showed reduction in the retrobulbar abscess. Patient was discharged with continuation of local eye drops. On the 18th post op day the right eye of the patient was within normal limits with no proptosis, no lid edema, pupil reacting to light and fundus WNL.

Importance of our procedure – the retrobulbar abscess could have extended intracranially causing spread of the infection to the brain leading to death of the neonate. USG guided aspiration of the abscess along with i.v antibiotics helped in resolving the abscess and helce preventing the intracranial spread of abscess and fatal complications.

Right eye retrobulbar abscess



Right eye retrobulbar abscess



CT IMAGE SHOWING PROPTOSIS



1st post procedure day



CT IMAGE PROPTOSIS



15th post procedure day



7th post procedure day



REFERENCE

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