VOLUME-8, ISSUE-7, JULY-2019 • PRINT ISSN No. 2277 - 8160

Original Research Paper

Radiology

POST TRAUMATIC INTRAPARENCHYMAL HEMATOMA LEADING TO SECONDARY INTRA ORBITAL ENCEPHALOCELE

Dr. Nilesh Ingale	Assistant Professor Department of Radiodiagnosis, Dr. D.Y. Patil Medical College, Navi Mumbai
Dr. Harshvardhan Singh Rathore*	Department of Radiodiagnosis, Dr. D.Y. Patil Medical College, Navi Mumbai *Corresponding Author
Dr. Madanmanmohan	Head of Department Department of Radiodiagnosis, Dr. D.Y. Patil Medical College, Navi Mumbai
Dr. Om Tavri	Department of Radiodiagnosis, Dr. D.Y. Patil Medical College, Navi Mumbai
Dr. Tulasi Manek	Department of Radiodiagnosis, Dr. D.Y. Patil Medical College, Navi Mumbai

ABSTRACT We report a rare case of intraparenchymal hematoma leading to secondary intra orbital encephalocele in a 6 -year-old boy who presented to our hospital with history of proptosis and swelling in left eye since 1 year . The patient had history of old head trauma in April 2018.

Encephaloceles are one of the rare congenital lesions consisting of herniation of intracranial contents from the cranial cavity. They may consist of meninges alone (meningoceles), may contain brain tissue in addition (meningoencephalocele or encephalocele), and may even include a ventricle (hydroencephalomeningocele).

Intraorbital encephalocele is an extremely rare condition. They are mostly seen in children with history of head trauma.

KEYWORDS : Orbital encephalocele Pediatric orbital trauma Proptosis

INTRODUCTION

Encephalocele is the herniation of brain tissue through dural defect.Intraorbital encephalocele is an extremely rare condition .

We report a case of a 6 year old Indian child who presented in ophthalmology OPD with history of proptosis and swelling in left eye since 1 year, which was followed after a head trauma in April 2018. The patient was then referred to radiology department for magnetic resonance imaging (MRI) brain .

Orbital roof fractures due to blunt trauma are rarely seen but the exact incidence of orbital trauma still not known. Majority of the cases are associated with head trauma.

Post traumatic orbital encephaloceles are even rare.

CASE HISTORY

A 6 year old male patient presented to our ophthalmology OPD with history of proptosis and swelling in left eye since 1 year. The symptoms were gradually progressive and associated with intermittent headache. Neurological examination revealed GCS of 15/15. No other significant abnormalty was detected.

The patient was admitted and pathological & radiological work up was done.

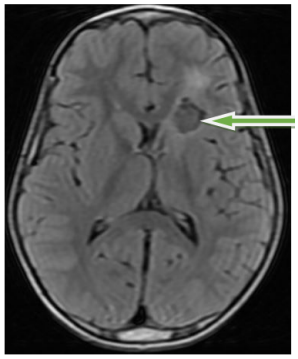
After performing a MRI brain(Plain+contrast study), it revealed an ill defined linear area of altered signal intensity in the left frontal lobe, adjacent to the frontal horn of left lateral ventricle and extending anteriorly and inferiorly into the left basi frontal lobe, upto the left orbit and further showing intra orbital extension into the superior extraconal compartment , through a defect of size 11 mm in the roof of left orbit, closely abutting the superior rectus muscle and displacing the superior rectus and left eyeball inferiorly. Mild resultant proptosis of left eyeball was also seen. Mild perilesional edema was seen with mass effect in the form of effacement of adjacent cortical sulci and mild compression of the frontal horn of left lateral ventricle.

The above findings suggested of intraparenchymal hemato ma with secondary intra orbital encephalocele .

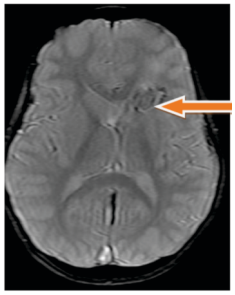
CONCLUSION:

Orbital encephalocele is a severe and sight-threatening complication following trauma. Post-traumatic orbital encephalocele are often difficult to diagnose on CT. When there is a high suspicion for encephalocele, an MRI of the orbits and brain with contrast study should always be done for characterization.

MR imaging is the thus the modality of choice for defining the contents of an encephalocele. High-resolution CT may be used for the bone anatomy, but the intracranial connection is best defined with MR imaging. The extent of cerebral tissue in an encephalocele is also better defined with MR imaging, which further helps in prognosis and further planning of management.



Axial T2 FLAIR image of the brain showing an ill defined hypodense area in the left frontal lobe, adjacent to the frontal horn of left lateral ventricle and further extension into the superior extraconal compartment.



Axial Gradient image of the brain showing area of blooming within suggestive of hematoma

Coronal T2W image of the brain showing a defect of size 11 mm in the roof of left orbit and herniation of brain parenchyma through it.

Sagital T2 W image of the brain showing similar features.

Coronal T1W post contrast image showing no obvious enhancement of the lesion.

REFERENCES

1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4129575/
2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3858775/
3. http://www.ajnr.org/content/ajnr/13/1/231.full.pdf
4. https://www.ncbi.nlm.nih.gov/pubmed/21206194
5. https://www.ncbi.nlm.nih.gov/pubmed/26905453