Case Report

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Meningoencephalocele

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Abstract

Encephalocele represents herniation of cranial contents through a congenital defect in the cranium.Herniation of cerebrospinal fluid (CSF) and meninges , is termed as a meningocele. A meningoencephalocele is herniation of both neural elements and meninges. There are various anaesthetic challenges in management of occipital meningoencephalocele these include securing the airway with intubation in lateral position, intraoperative prone position and complications associated with it , careful securing of the endotracheal tube and accurate assessment of blood loss. We report a case of a giant occipital meningoencephalocele and discuss its treatment.

Keyword: Meningoencephalocele.

Introduction

Encephaloceles are the congenital openings in the midline region of the skull, mainly at the junction of the chondro- and desmocranium, which permit meninges, brain substance or both from the cranial cavity. Data on the prevalence of encephaloceles are from 1 in 2500 to 1 in 25000 normal births. A meningocele is a cerebrospinal fluid (CSF)-filled hemial sac . The hernial sac is lined and covered by meninges. A sac which contains brain tissue or other glial matter is called as meningoencephalocele. An encephalocystocele is formed by the herniation of brain and fluid-filled parts of the ventricles thro-ugh the osseous defect. Encephalocystomeningocele is the severest grade of hernia-tion , in which por-tions of the brain and ventricles are accompanied by a large collection of CSF in the meningeal space [1,2]. Meningoencephaloceles is subdivided into oc-cipital, parietal, basal and syncipital [3] The synci-pital can further be divided into three types which comprise fronto-ethmoidal (subdivided by facial skeleton exit site into naso-frontal, naso-ethmoidal and naso-orbital), interfrontal and those associated with craniofacial clefts [4]. Naso-ethmodial meningocele is the herniation of meninges with or wit-hout brain tissue through the anterior cranial base in the region of the foramen caecum In this paper, Here we report a case Occipital me-ningoencephalocele

Case Report

A six-year-old male child Came to our Paediatric OPD complaining of a large swelling in the occipital region The boy has been born with this round Swelling in the occipital region. At birth the baby was full term, baby cried immediatly after birth. At birth Apgar score was 11 and weight was 2.4 kg. The covering skin was normal in appearance and had slight hyper-pigmentation over the distal part. The lesion was compressible, and used to increase in size du-ring crying.

MRI was done which was suggestive of meningoencephaloceole.

Lab Reports were done

Hb 12.

Wbc 10,000

Platelets-200000

BUN: 18mg/dL;

Serum Creatinine: 0.4 mg/dL;

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Urinalysis: no hematuria or proteinuria;

ESR: 20 mm/Hr;

CRP: 5.6mg/dL;

Fig. 1: Occipitaswelling of Patient

Fig. 2: Occipital Swelling of Patient

Treatment

Done was ,patient was given intravenous fluid and intraveneous antibiotics and taken for operate. Surgical management-After inducing general anesthesia, a lumbar puncture is performed.Patients are placed prone. Scalp is incised and occipiotal craniotomy done. The procedure done is exicision of meningoencephaloceole with VP shunt insertion.The lumbar drain is kept in situ postoperatively and is usually removed on postoperative Day 3. In the immediate postoperative period, a cranial noncontrast CT is done. reconstructed images of the occipital bones is obtained. Following discharge, the patient is seen in the outpatient clinic at 2 weeks and 3 months postoperatively by both the neurosurgeon and we paediatrcian to evaluate wound healing and the patient's clinical Status.

Discussion

Occipital meningoencephalocele is neural tube defect which is very rare.

It develops after the failure of normal midline fusion of cranial neural tube leading to congenital bony defect through which brain and meninges herniate[5]. Defects which are associated with it are congenital defects which include club foot, hydrocephalous, extrophy of bladder, prolapsed uterus, Klippel-Feil syndrome and congenitalcardiac defects [6]. The prognosis of patient of meningoencephaloceole depends on the size of sac, the contents of neural tissue, hydocephaly, infection other pathology accompaning the condition.

Conclusion

A 6 year male coming to paediatric OPD was admitted and treated, The swelling was since birth, which increased gradually. Patient was taken for operate, exicision of meningoencephalocoele with VP shunt insertion was done, drain was kept in situ.Postoperative CT Scan was done. Patient was discharge and was seen in OPD at 2weeks and 3 month.

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