Case Report on Turricephaly

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Abstract

Turricephaly is regarded as one of the most challenging cranial malformations to treat because increasing intracranial pressure can occur when cranial height is reduced. In typical medical and nursing situations, kids with turricephaly can be identified by their osteogenesis imperfecta, ophthalmic proptosis, hydrocephalus, and certain facial characteristics such substantial temporal steamrolling, facial asymmetry hypoplasia, and micrognathia. Turricephaly is a rare and potentially fatal autoimmune disease. In the beginning, estimates of turricephaly from antiquity to the present are shown, and in the end, the findings of a personal investigation into the generally disturbed social behaviour and A 4 year male child admitted in pediatric department in hospital the patient reported Head swelling, nausea, occipital area swelling, both eyes swelling, and irregular skull form. The primary therapeutic interventions was given to the patient and he was treated with syringe zincovit 5 ml BD antibiotic intravenous fluids during hospitalization and the treatment was continued until my final day of care.

Keywords: brachycephaly, scaphocephaly, turricephaly, craniofacial anomalies, autoimmune disease, micrognathia.

INTRODUCTION

The term turribrachycephaly is frequently used. Together along with unilateral coronal osteogenesis and oxycephaly, turricephaly is characterised by a rise in the vertical height of the skull, which is frequently accompanied by brachycephaly. (1) Certain surgical procedures, such as those created by Marchac, focus on enhancing cranial volumes and restoring typical fronto-orbital aesthetics without addressing the excessive height. (2) Without addressing the height of the cranial vertex, other methods try to modestly lessen brachycephaly.

These partial procedures are utilised in part because it appears difficult to cure both excess height turricephaly and anteroposterior deficit brachycephaly at the same time. (3) In The majority of experts concur that preventing turricephaly by relaxing intracranial constriction early and so lowering the forces supporting vertical growth is the best course of action for treating if order to cure bilateral coronal synostosis, the early posterior vault distraction procedure was developed. (4) 4–8 However, some disorder morphologies cannot be surgically treated, and some people only exhibit symptoms once turricephaly has begun. As a result, turricephaly can’t always be avoided. The senior author has frequently employed the Melbourne method of whole calvarial vault remodelling to correct sagittal craniosynostosis. (5) In this procedure, a coronal bone strip from the parietal region is removed, turned by 90 degrees, and then moved to the occiput. (6) This relocated segment lifts the occiput and significantly reduces the intracranial length of the scaphocephalic skull to correct the bathrocephaly component of the abnormality.

(7) By using a similar concept of bone transposition in reverse orientation, the skull can be made longer anterior-posterior and shorter vertically. (8) The calvarial vault as a whole can be redesigned using the unique technique we offer in this work to treat turribrachycephaly.

(9) This CT and MRI was done (TI), which is calculated as a simple coefficient of the maximum possible right superior length of such a skull toward the distance from the axis of a fast-flowing to towards the maximum height on the vertex, is presented as just a valid and reliable tool for assessing turricephaly and trying to assess surgeries methods aimed at reducing it.
Case presentation:-

a male 4-year-old toddler was taken to the hospital. The patient, a male child, was admitted to the paediatric ward, with the current medical history of an abnormally shaped skull, an enlarged head that is vertical in size, and an occipital area that is swollen. He experiences nausea and edema around both of his eyes.

A diagnostic assessment  Soft tissue subglial enlargement in the occipital area as shown on USG skull. Multiple cystic spaces are present in the swelling. MRI testing of subglial lipoma is ongoing. MRI and CT scan results show that the child's condition is abnormal.

Keeping an eye on vital signs and measuring the head’s circumference will help you stay comfortable. To ensure adequate skin care and hygiene, the position was changed on time, and intake and output talking were kept up every two hours. On schedule, medication was administered, Oral pharmaceutical therapy permitted syrup zincovit 5 ml in BD and a dietitian recommended a healthy eating strategy. Overall, the patient responded well to the medication, and their condition steadily got better. DNS and RL double-checked that the patient was getting enough sleep and that the sleep medication was being delivered as directed by the doctor in addition to checking vital signs, anthropometric measurements, an intake and output chart, and other factors.

Medical management continue and patient prognosis was good.

The distal penile of a 4-year-old child was identified at birth, underwent surgery at one and a half years old, was admitted to the hospital, and afterwards passed urine normally. At age three, he had surgery to remove the second step, was moved to the proximal perals, and is now being brought back for additional postoperative treatment.

The patient is doing well despite the care that has been provided. On the seventh day, he was released, but not before she received a warning to abstain from strenuous activity. I was advised to stay in bed for the remainder of the day. You should visit your doctor every six to twelve months for a checkup even if you don't require therapy. When utilising medicine in specific situations, it is crucial to concentrate on overall health.

The patient condition was good he is oriented time place percen. This case improvement of patient condition to provide nursing management and medical management. In this case medical management continue and patient prognosis was good.

Discussion:-

The majority of surgeons consider turricephaly surgical avoidance to be preferable to therapy and turrirbrachycephaly correction to be difficult, possibly dangerous, and visually unsatisfactory. (10-21) Treatment options for turricephaly in one stage have been discussed. According to a procedure revealed in a study by Persing et al. turricephaly can be cured with just one surgery. The removal of a bone plate at the vertex continues the removal of four vertical bone struts that are positioned anteriorly, bilaterally, and posteriorly. (22-30) By restructuring and shortening these struts, the length and diameter of the cranium are raised while the height is decreased.

To enhance the shape of the skull, changes are made to both the intermediate frontal and occipito cranial segments. (31-32) This could be a drawback because the method aims to reduce the height of the calvaria while permitting substantial development in a new direction. The characterization of simultaneous orbitozygomatic osteotomies with superior orbital bar greenstick fractures does not result in an advancement of the fronto-orbital bandeau, such as the frontal cortex advancement approach for the treatment of symmetrical coronal craniosynostosis, which involves remodelling or distracting the posterior cranial vault.

Jarrah et al. describe a method for treating Kleblattschädel deformity. offered a two-stage method. This technique directly addresses turricephaly by removing wedge-shaped portions of bone and compressing the calvaria vertically both during the first frontal cortex progression and once more during the second step of reconstructing the posterior cranial vault. In this case we have to discuss about the 4 year male child admitted in pediatric department suffering from termicephaly swelling in occipital region swelling consist of multiple cystis space. Subglial lipoma further evaluation of MRI and head enlargement of vertical in size. We must talk about how the patient in this situation received management of their medical care, but in accordance with the patient's condition. The suggested 1-2 cm measurements for the axial strips were based on a clinical assessment of the
predicted AP displacement and southerly shift of the calvaria. The lamina and brain's ability to withstand downtrend and AP forces, the advancement of the sagittal orbital globe connection without causing a dysmorphic appearance, and establishing tension-free scalp closure have all been best balanced at this width. Future developments in 3-dimensional modelling will make preoperative simulation of surgical procedures simpler and more affordable, improving patient-specific dimensions and reducing procedure times. For the purpose of illustrating the clinical application of TI, we have concentrated on the turricephaly of children with Apert syndrome and demonstrated how their TI differs from that of age-matched controls (1.42 for children with Apert syndrome versus and 1.73 for controls (p 0.001)), despite the fact that both populations exhibit a similar tendency for TI to increase with age. Although it has been asserted that untreated turricephaly is probably going to get worse with age (perhaps a reason for early intervention), our study demonstrates the reverse - there is a trend for TI, over time, to diminish and approach more typical proportions (an increase in TI from 1.25 under 1 year old to 1.41 over age 5 years against a mean TI of our control population of 1.73). Therefore, the craniofacial surgeon must exercise caution when advising parents of children with Apert syndrome that an expected worsening of turricephaly justifies doing early reconstructive surgery. Numerous operations, such as a posterior vault enlargement, may indeed lessen turricephaly, but our data indicates they are not necessary for prevention alone.

Conclusion:-

A toddler was found to have a big turricephaly. It vital to detect the illness early in order to prevent the youngster from developing problem as a result of it. It's also crucial to take preventative steps like prenatal screening and genetics counselling. In this case the patient was treated with the initial course of care in the starting phases, which includes antibiotics, zincovit, and intravenous fluids during hospitalization the patient prognosis remains good. and the treatment was continued until my final day of care.

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