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A Case Report of Lumbosacral Lipomyelomeningocele with Tethered Cord Syndrome

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Abstract

The objective is to describe a rare case of lumbosacral lipomyelomeningocele with Tethered Cord Syndrome. Tethered cord syndrome is a neurological disorder caused by tissue attachments that limit the movement of spinal cord within the spinal column. A 7 years old girl child presented with lumbosacral swelling with non healing ulcer on foot and with weakness of lower limbs since childhood. MRI scan of lumbosacral spine suggest spinal dysraphism in L3-L5 vertebrae with lipomeningomyelocele from L2 to S2 levels with tethered low lying cord .The patient underwent surgical procedure. The majority cases of tethered cord syndrome are related to spinal dysraphism.Children with spinal dysraphism, especially those with lipomyelomeningocele, who may be associated with TCS, which may be asymptomatic at an early stage, require intensive follow-up care and observation.

Keyword: Spinal dysraphism, neurological disorder, TCS, lipomeningomyelocele.

Introduction

Tethered Cord Syndrome is a group of neurological disorders involves spinal cord malformation includes Spinal dysraphism sequence or Tethered cord syndrome (TCS)[1].Tethered cord syndrome(TCS) is caused when the end of the spinal cord get attached to the tissue that surrounds it[2].Incidence of TCS is very rare likely 0.25 % per 1000 birth[3].TCS is more common in peadtriatics but it can be found in any age[4].Clinical symptoms includes like lipomatous mass that is present in lumbosacral region.Other symptoms like hemangioma and skin dimples can be seen[5,6].The standard diagnostic tool is MRI of the lumbosacral spine[7,8].Ultrasonography is another imaging technique that may be used, although its effectiveness depends on the operator and the

position of the foetus[7-9].One of the key contributors to the tethered cord syndrome is lipomyelomeningocele[10,11].Primary tethered cord syndrome may differ significantly from secondary variants caused by trauma, prior myelomeningocele repair, or general dysraphism in individuals with myelomeningocele, lipomyelomeningocele, split cord malformation, dermal sinus tract, and neuroenteric cyst[12].

CASE REPORT

A 7 years old female patient was admitted in the female surgery ward with the chief complaint of lumbosacral swelling and with non healing ulcer on foot and with weakness of both lower limbs bilateral foot deformity since childhood. History of present illness is swelling since childhood and it is gradually progressive in size and it is not Painful. No any significant past history is seen. No similar complaints is seen in family history. Laboratory investigation as of haematology report shows haemoglobin(10.7g/dl), TLC (11.5thousand/cumm),TRBC(4.20 millions/cumm),MCV(76.1 Fl), MCH(25.3pg),PCV(32%).As per biochemistry report it shows bilirubin indirect(0.19 mg/dl),AST(41U/L),serum creatinine(0.48 mg/dl).In radiological investigation, MRI of the lumbosacral spine shows that spinal dysraphism in L3-L5 vertebrae with lipomeningomyelocele from L2 to S2 levels with tethered low lying cord. Based on history examination and investigation diagnosis of lumbosacral lipomyelomeningocele with Tethered Cord Syndrome was made. The patient was treated under the expert guidance of neurosurgeon .The patient underwent surgical procedure -laminectomy with excision of lipomyelomeningocele with de-teelsering of cord with dural repair.

DISCUSSION

The rate of incidence of Tethered Cord Syndrome in children worldwide is 0.25% per 1000 live birth. Patient with TCS may experience a variety of symptoms including orthopedic, neurological and urologic abnormality. Lipomyelomeningocele is a form of closed neural tube defect and can be present with neurological deflects secondary to Tethered cord syndrome. The condition is probably treatable if caught early. MRI can help with the accurate diagnosis. The patient was 7 years old female admitted in the hospital with the chief complaints of lumbosacral swelling and with non healing ulcer on foot and with weakness of lower limbs since from childhood. The patient received care of from a team of health professional including neurosurgeon, orthopedics ,clinical pharmacists and nursing staff. After getting proper care from the health care professional her swelling decreases and she has to take medicines as prescribed. Her parents were counseled properly to take care of his child and do suggested medication properly fpr more improvement.

CONCLUSION

In this report, we discussed a rare case of Lumbosacral lipomyelomeningocele with Tethered Cord Syndrome. Our study reports that her symptoms get relieved after taking proper medication and after the surgical procedure done by neurosurgeon. This case highlights the importance of MRI as in detecting the condition and it must be noted for improving outcomes of surgical treatment.Early surgery is indicated to prevent any further complication.

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