



A RARE CAUSE OF LOWER LIMB PAIN – INTRAMEDULLARY DERMOID – A CASE REPORT

Dr. Rangasamy Krishnamoorthi	Professor & Hod, Department Of Pediatrics, Vinayaka Missions Kirupanandavariyar Medical College And Hospitals, Salem.
Dr. Yadavalli Arpitha*	Postgraduate, Department Of Pediatrics, Vinayaka Missions Kirupanandavariyar Medical College And Hospitals, Salem. *Corresponding Author
Dr. R. Saranya	Associate professor, department of pediatrics, vinayaka missions kirupanandavariyar medical college and hospitals, salem.
Dr. Mallikarjun Talikoti	Postgraduate, Department Of Pediatrics, Vinayaka Missions Kirupanandavariyar Medical College And Hospitals, Salem.
Dr. Muralidharan.P	Postgraduate, Department Of Pediatrics, Vinayaka Missions Kirupanandavariyar Medical College And Hospitals, Salem.

ABSTRACT Dermoid cyst is a benign tumor. It accounts for only 1-2% of intra spinal tumors. It is most common in children less than 10yrs of age accounting for 10-17%.

-Only 1% of dermoid cyst occurs intramedullary. The usual sites are lumbosacral spine(60%), thoracic spine(10%), and cervical spine(10%).
-The common presentation is with pain in lower limbs, back pain, balance problems, numbness and weakness, seizures, headaches. Here we are presenting 4 year male child.

KEYWORDS : Dermoid cyst, Intraspinal tumor, Intramedullary, Lumbosacral spine.

Background :

Dermoid cyst rarely occurs in the spine, especially intramedullary. Only 1% of dermoid cyst occurs intramedullary. The predilection ranges from lumbosacral spine (60%), thoracic spine (10%) and cervical spine (5%) . Dermoid cyst are histologically different from epidermoid cyst. Dermoid cyst is coated with dermis which contains skin appendages such as hair and sebaceous glands, while epidermoid cyst on the other hand is coated with multilevel squamous epithelium and only contains declaimed keratin. They arise from the remnants of cells due to failure of embryological process involved in neural tube closure. The process begins in the neural tube which is the origin of lower cervical cord and continues to the rostral and caudal part.

Case report:

Clinical history:

- Our index case is a 4yr old male child presented with
 - (I) C/o pain in left lower limb for 4 months
 - (ii) C/o frequent fall for 2 months
- Patient got treated in outside hospital for the same with NSAIDs.
- There is no H/o trauma; no H/o seizures; no H/o similar complaints in the family and no H/o TB exposure ; no H/o bowel and bladder incontinence.
- Ortho opinion was done in order to rule put Transient synovitis and other musculoskeletal causes of pain.

On examination:

- No neurocutaneous markers.
- Tone, power, reflexes are normal. Plantar is flexor.
- Normal cerebellar functions.
- No sensory deficit.
- Joint examination is normal. No joint swelling or tenderness or laxity.
- Gowers sign is negative.

Investigations:

ESR: 15mm
CPK: 116.1 U/L
TSH: 2.50 uIU/mL
T4: 10.86 ug/dL
T3: 1.84 ng/dL

MRI: Well defined multi loculated oval shaped intramedullary cystic lesion with fat component, measuring 40X23X15 mm is seen in the lower cord/conus medullaris extending from inferior end plate of D12 inferiorly upto L2 vertebral level. On post contrast, lesion shows

peripheral enhancement with faint solid component in posteroinferior part of the cyst.



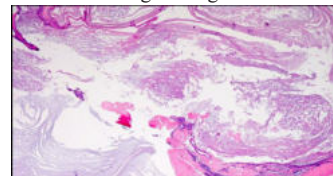
MRI image showing cystic lesion at the level of conus medullaris.

Treatment:

- Surgical excision is the treatment of the choice.
- D12 & L2 laminectomy, Excision, and biopsy of the mass.

Diagnosis:

- Histopathological report of the mass is as follows:
- Fibrous wall is lined by keratinized squamous epithelium. Cystic lumen is consisting of squamous epithelial cells, keratin debris, fat cells, sweat glands and sebaceous glands.
- All these features confirming the diagnosis to be DERMOID CYST.



Post op follow up:

- No h/o pain in lower limbs and frequent falls post surgery.
- No neurological deficit was seen post-surgery.
- No bowel and bladder incontinence post surgery.

DISCUSSION:

- Dermoid cyst can be congenital or acquired. Congenital lesions are believed to be as a result from the insertion of ectodermal cells during neural tube closure.

- The common locations of dermoid cyst are scalp(angle of eye & retro mastoid region),skull bones, intracranial, intraspinal mainly intradural associated with other spine effects.
- It is usually associated with other developmental anomalies but in this case no other abnormalities were found.

CONCLUSION:

A complete clinical examination has to be done and imaging has to be considered in cases presenting with prolonged lower limb pains, though there is no neurological deficit, in order not to miss any spinal tumors.

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