PAIN IN THE NECK

Dr. LAVANYA
Dr. JANANI SANKAR
Dr. B.CHIDAMBARAM
KANCHI KAMAKOTI CHILDS TRUST HOSPITAL
Presenting complaints

- 9 years old
- Developmentally normal boy
- H/O neck pain for 3 months
- Not radiating
- Disturbing sleep and daily activity
- Leading to significant school absenteeism
History

- No H/O fever
- No H/O trauma
- No H/O seizures
- No H/O loss of weight/ loss of appetite
- No H/O contact with TB
- No significant past history
• He was treated symptomatically for the same for 3 months (multiple analgesics)

• In view of persistent symptoms, he was brought to us.
GENERAL EXAMINATION

• He was afebrile, alert
• Well built, well nourished
• No significant lymphadenopathy
• No torticollis
CNS

- Distal muscle weakness in both upper limbs (3/5)
- Reflexes were brisk
- B/L plantar – flexor
- Tone was normal
- No cranial nerve deficit
- Sensorium was normal
• Sensory loss in C6 – C8 region

• Other systems – normal

• Back - normal
LOCAL EXAMINATION

- Tenderness over C1 – C2 region
- Restriction of neck flexion and extension (due to pain)
- Thoracic and lumbar spine was normal, no tenderness or restriction of movements
INVESTIGATIONS

• CBC – normal
• ESR – normal (8 mm/hr)
• PT, PTT was normal
• Mantoux was negative
• X-ray cervical spine revealed loss of neck lardosis and widening of cervical spinal canal.
MRI SPINE

- A heterogenous lesion of 7.8 x 2.3 x 1.7cm was seen in the cervical cord (intramedullary) extending from C1 – D1 with minimal edema.
- No evidence of hemorrhage/ tonsillar herniation/ drop metastasis
- No significant abnormality was seen in dorsal/lumbar spine
- Screening of brain was normal
- MRI was reported as astrocytoma
NEUROSURGICAL OPINION

- He underwent **cervical laminectomy \& excision of tumour**.

- Intraoperative – tumour cord interface was not made out.

- No significant post-operative complications.
HPE report

• Glial neoplasm composed of several clear cells with round vesicular nuclei and moderate amount of clear cytoplasm.

• Some of the cells are fibrillated stromal microcystic change and focal perivascular orientation is noted.

• Ependymoma (clear cell variant) – WHO grade II, intramedullary C5-D1 level
FOLLOW UP

• He is doing well at follow up

• He has no neck pain

• No neurological deficits
DISCUSSION
SPINAL CORD TUMORS

Extramedullary
- Intramedullary
- Intradural

Intramedullary
- Extradural
Intramedullary tumors

- 6% of CNS tumors
- Uncommon
- Incidence: 4-10 per 10 million children
- Most common site is the **cervical** followed by cervicothoracic cord.
Pathological types of intramedullary tumors

• Astrocytoma (46%)
• Ganglioglioma (27%)
• Ependymoma (12%)
• Miscellaneous– oligodendroglioma, glioneurofibroma, hemangioblastoma, metastatic medulloblastoma.
Clinical presentation

- Motor deficits – 65%
- **PAIN** – 46%
- Gait disturbances (37%)
- Sensory deficits
- Scoliosis
- Torticollis
- Urinary incontinence
- Headache
EPENDYMOMA

• Arise from the ependymal lining of the ventricular system.
• Accounts for 10% of childhood tumors.
• WHO grading - 3 types.
  - Grade I – Myxopapillary ependymoma
  - Grade II – Ependymoma (most common)
  - Grade III – Anaplastic ependymoma
• Mean age of presentation – 6 years.
• 70% occur in posterior fossa.
• Clinical presentation vary depending upon the anatomic location of tumor.
• **MRI** shows a well-circumscribed tumor with variable pattern of contrast enhancement with or without cystic structures.
• **Histology** - Ependymal rosettes
  Perivascular pseudorosettes
Treatment

- Surgery is the primary modality of treatment
- Surgery alone is rarely curative
- Followed by radiotherapy to involved area
- Role of chemotherapy is not clear
PROGNOSIS

Poor prognostic factors

• Young age <5 years

• Tumors in posterior fossa

• Extent of surgical resection
APPROACH TO NECK PAIN
NECK PAIN

CERVICAL CORD LESIONS

LOCAL TRAUMA

TUMOUR

HEMORRHAGE
NECK TILT

OCULAR
(Diplopia)

INTRACRANIAL
(Posterior fossa tumour)
TAKE HOME MESSAGE

• NEVER IGNORE NECK PAIN / NECK TILT AS NECK SPRAIN / FUNCTIONAL PAIN IN A CHILD.

• Do not prescribe analgesics without evaluating the child in detail.

• Do not delay the diagnosis.
THANK YOU