LETTER TO EDITOR (VIEWERS CHOICE)

RECURRENT SPINAL ARACHNOID CYST WITH HEMIVERTEBRAE

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A 9 years old girl was admitted with complaints of severe pain in left arm for 2 months, aggravated on change in posture of neck with radiation to left upper back and progressive weakness of left upper limb. Child had similar complaints one year ago. On examination, power in left upper limb was 4/5 with diminished deep tendon reflexes and no sensory deficit. Right upper limb and lower extremities were normal. X-ray spine showed hemivertebrae at D3-6 levels (Figure 1). MRI revealed well defined intraspinal intradural extramedullary ovoid mass lesion (3.2x1.3x1.6 cm) at C3-C6 levels on left side and midline, hyperintense on T2w and hypointense on T1w images. (Figure 2). Child underwent laminectomy at C3-C6 level and excision of mass. Histopathology showed fibrocollagenous tissue consistent with clinical diagnosis of arachnoid cyst. Repeat MRI showed intradural extramedullary cystic lesion at the same location compressing cord posteriorly and towards right side. Re-exploration of previous incision, excision of arachnoid cyst and placement of syringo-subarachnoid shunt was done. Post-operative recovery of child's symptoms was uneventful.

Figure 1: Hemivertebrae at D3-6 on Spinal X-ray

Figure 2: Arachnoid cyst at C3-6 hyperintense on T2 weighted image

Arachnoid cysts are benign fluid collections within the arachnoid membrane filled with a fluid similar to cerebrospinal fluid (CSF) occurring either in the brain or along the spinal cord. Arachnoid cysts are seen in 4% of the population. Intraspinal arachnoid cysts are classified as intradural or extradural cysts. (1) Extradural arachnoid cysts typically occur in the thoracic spine dorsal to the spinal cord and need to be differentiated from synovial cysts, ganglion and discal cysts. (2) Intradural arachnoid cysts are more common than extradural cysts and need to be differentiated from enterogenous cysts. Either type of cyst may or may not communicate with the subarachnoid space. (3-5) Congenital arachnoid cysts are developmental anomalies. Secondary arachnoid cysts are rare and result from arachnoid adhesions due to trauma and infections, chemical meningitis, inflammatory meningitis. Arachnoid cysts may be asymptomatic discovered incidentally on MRI performed for a variety of reasons or become symptomatic by exerting pressure on the surrounding tissues or by interfering with the dynamics of the CSF circulation. Symptoms typically include waxing and waning pain and spastic or flaccid paraparesis or symptoms suggestive of an isolated radiculopathy. (6) Less typical presentations include non-cardiac chest pain, isolated gait difficulty, and isolated urinary urgency. (4,5,7) The majority of intradural spinal arachnoid cysts occur in the thoracic region with only 15% in the cervical region and 5% in the lumbar region. (8,9) Asymptomatic cysts need observation with yearly imaging. For patient with symptoms complete resection is ideal treatment with excellent outcomes in terms of resolution of symptoms. Minimally invasive surgical techniques by selectively closing the dural defect with clips have also met with some success. (7) In the present case, arachnoid cyst was intradural and ventral and to left side of cervical spinal cord (a relatively uncommon site) and associated with hemivertebrae.

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