to the right side. There was progressive weakness of both lower limbs for one year. Bowel and bladder functions were normal.

On examination, he had spastic Grade 3 paraparesis. Sensory examination was normal. MRI thoracic spine revealed an oval, thin walled, well-defined, intradural cystic lesion located at the level of T_{1-2} vertebrae, on the right side of cord. The lesion was hyperintense on T_{2} and hypointense on T_{1} weighted images. It measured 2.3 cms x 1.7 cms x 1.3cms (Figure 1 and 2).

A laminectomy was performed and the intradural cyst was identified at the ventrolateral aspect of spinal cord. The cyst had a thin membrane and contained xanthochromic fluid. After needle aspiration of the cyst content, the wall of the cyst was resected. Microscopic examination of cyst wall revealed fibrous connective tissue lined by a cuboidal columnar epithelium with focal pseudostratified epithelium (Figure 3). Post-operative period was uneventful and the weakness in the lower limbs improved rapidly.

Neurenteric cysts are rare developmental cysts, which arise as a result of endodermal - ectodermal adhesions or as a result of abnormal separation of the germ cell layer in early embryological life.2 Neurenteric cysts may also be associated with anterior or posterior spina bifida, widened vertebral bodies, fused vertebrae, hemivertebrae and diastomatomyelia.3,4 These cysts have been described by various names, including enteric cysts, enterogenous and archenteric cysts. The review by Agnoli et al of 33 histologically verified enterogenous intraspinal cysts, showed that 18 were located in the cervicodorsal spine, 80% were intradural extramedullary and 12% were intramedullary cysts.5

The cysts can mimic arachnoid, epidermoid and teratomatous cysts. The content of these neurenteric cysts are known to be irritative to neural tissue which results in adhesions and subsequent attempts at excision become more difficult. The risk of recurrence in intracranial enterogenous cysts has been reported to be 37%.5 However there have been only isolated reports regarding recurrence in intra spinal cysts after partial excision.

In light microscopic analysis, the epithelium varies from a ciliated columnar lining to a typical gastric or small intestinal lining i.e. single pseudostratified columnar epithelium with or without mucusis mucosa and a smooth muscle layer. There may be goblet cells. The enterogenous cysts lack the serosal layer.1 The cyst fluid can be mucoid, black, brown, chocolate, yellowish or occasionally colorless.

Neurenteric cysts, which are present ventral to cord, are not associated with vertebral anomaly. This is said to be due to notochord splitting or allowing endoderm to herniate into spinal canal. Subsequently the split notochord reunites giving rise to normal vertebral.2

S. K. Jain, S. Chopra, P. P. S. Mathur
Department of Neurosurgery, SMS Medical College, Jaipur, India.
E-mail: Shashi_neelu@yahoo.com

References


Accepted on 11.10.2002.

Thecoperitoneal shunt in case of symptomatic anterior sacral meningocele

Figure 1 and 2: MRI Thoracic spine T_{1} and T_{2} weighted images showing oval, thin walled, well defined intradural cystic lesion located at T_{1-2} vertebrae.

Figure 3: Cyst shows fibrous connective tissue lined by cuboidal columnar epithelium with pseudostratified epithelium.
Sir,

An anterior sacral meningocele is a cerebrospinal fluid-filled unilocular or multilocular extension of the dura mater and arachnoid mater out of the spinal canal through a defect either in the anterior sacral wall or antero-laterally through an enlarged vertebral foramen or coalesced foramina into the pelvic retroperitoneal and infraperitoneal space. Since its description by Bryant in 1837, only about 154 cases have been reported in the world literature. There have also been reports of an anterior sacral meningocele being a part of the Currarino triad, which is a hereditary condition diagnosed when three abnormalities are noted: an anorectal malformation, an anterior sacral defect, and a presacral mass.

An 18-year-old unmarried female patient presented with a history of gradually increasing difficulty in defecation for two years. On digital rectal examination, a mass was felt in the presacral region. No cutaneous stigma or any vertebral column abnormality was visible. Plain skiagram revealed the characteristic 'scimitar' sign, characteristic of anterior sacral meningocele. Magnetic Resonance Imaging lumbar myelogram confirmed the presence of meningocele. As the meningocele sac appeared to be too large for direct ligation, a thecoperitoneal shunt was performed. Following surgery, the presacral mass could no longer be palpable by digital examination. Subsequent myelograms at 6 months and 1-year intervals revealed gradual reduction in the size of the meningocele sac, although there was no complete obliteration.

Adson advocated a posterior transsacral approach for treating anterior sacral meningocele. Such an approach entails sacral laminectomy and intradural exploration to expose the anterior communication with the meningocele, aspiration of the meningocele sac through its pedicle, and closure of the defect with a primary suture repair or obliteration with a fascia graft. Such a method of treatment is most suitable for a meningocele with a small pedicle. The unsuitability of this approach in case of a meningocele with a wide neck and orifice has been reported. The exposure of the meningocele sac by an abdominal or retroperineal approach may allow a better exposure and subsequent closure of the pedicle. However, such an operation is more difficult and hazardous. Laparoscopic management of anterior sacral meningocele has also been reported recently.

In our patient, there was a wide communication of the meningocele sac with the spinal subarachnoid space and our simple alternative method treatment by a thecoperitoneal shunt proved to be effective. To the best of our knowledge, there is no report of such a procedure being attempted in the case of an anterior sacral meningocele.

Alok KR. Khan, Sumit Deb, Dibyendu Kumar Ray, Bidyut Kumar Nag*

Neurosurgery Unit & *Dept. of Radiodiagnosis, R. G. Kar Medical College, 1, Kshudiram Bose Sarani, Calcutta - 700 004, India.

References

Accepted on 04.10.2002.

Blinking of the eye on voluntary movement on the side of paralysis in a case of cerebrovascular accident

Sir

Cerebellar ataxia and hemiparesis are common with lesions in the region of the internal capsule. The palmo-ocular reflex is not so well recognized or reported.

A 40-year-old, non-diabetic or hypertensive male patient was admitted after about 24 hours of sudden onset of slurring of speech disturbance and weakness of the right side of the body. The weakness was more pronounced in the leg. The neurological examination revealed that the power was Grade 4 in the right-sided limbs. The deep tendon reflexes were brisk on the right side and plantar reflex was extensor on the right side. There was no sensory deficit. The finger nose and knee heal test demonstrated ataxia on the right side which appeared out of proportion to the weakness. The patient was observed to have blinking of the right eye when he was asked to move his right hand for passive physiotherapy. The blinking and tremors of the right hand were more pronounced when the hand movements were carried out nearer to the face.

CT scan brain showed a fresh non-hemorrhagic infarct in the territory of the left middle cerebral artery and affecting the region of the ipsilateral corpus striatum and corona radiata. In addition there was an old infarct in the right middle cerebral artery territory affecting the regions of the lentiform nucleus and corona radiata. Another old lacunar infarct was observed in the left lentiform nucleus.

The exact explanation of the cause of the “palmo-ocular”