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Spine Clinics

Rare cause of upper limb parathesia

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Welcome

In this issue, a rare cause of upper limb numbness is presented. She was worked up and found to have an intrinsic spinal lesion.

We are giving a GP symposium on the **28 May at Mt Alvernia Hospital**. The spine team will cover recent advances in treatment of spinal disorders from vertebroplasty to minimally invasive and endoscopic procedures.

Upper Limb Parathesia

Presentation

Mrs K is a 42 year old Indonesian banker who presented with 2 month history of intermittent numbness in her upper limbs. She noticed an increased difficulty with her hand-writing and her arms were tired easily.

There was no preceding history of trauma. Pain was not one of the symptoms noted.

She was treated for 'slipped disc' with physiotherapy by her doctors in Indonesia but her numbness increased over time.

Physical findings

On examination, she was found to have a normal gait. Her tone and power was normal as well. Exaggerated reflexes in both her upper limbs were detected. Sensation to light touch was diminished over the right C5 and C6 dermatome and over the C5-C8 dermatome on the left. Pin prick and temperature sensation were similarly affected.



Sagittal T2 Image showing an intrinsic lesion at C6. The cord is widen and presence of cyst noted at the upper end of the lesion.

Imaging Studies

MRI with contrast of her cervical spine showed an intramedullary lesion at C6 level. It was a mass lesion that expanded the spinal cord. The enhancing nature as well as the presence of a cyst at the upper end of the mass pointed to the likelihood of this being an ependymoma.

Treatment

Surgery was performed via laminectomy at C5 and C6. Dura was opened and the spinal cord split open in the midline. A reddish mass that was distinct from the surrounding spinal cord was encountered and the presence of a clear margin between the lesion and the spinal cord allowed complete excision of the tumour. Her post-operative recovery was uneventful.

Histology

The tumour was confirmed to be ependymoma, WHO Grade 2. As complete excision was achieved, she did not need to receive any adjuvant therapy. Her one-year follow-up MRI shows no evidence of tumour.

Discussion

Intraspinal tumor as a cause of paresthesia is rare. The history of this patient was suspicious as the symptoms were intermittent and non-radicular in nature. Tumours of the spinal cord occur in about 2-4% of all central nervous system tumours. The most common kinds of intramedullary tumors are ependymomas, astrocytomas, and hemangioblastomas.



MRI taken 1 year later with no evidence of tumour

In adults, ependymomas are the most common tumor type, accounting for 40-60% of all intramedullary spinal tumors, with the mean age of presentation being 35-40 years. Ependymomas are usually indolent and are well-encapsulated tumors that are histologically benign. Pain and neurologic deficits arise as a result of progressive stretching and distortion of nerve fibers. Usually a clear anatomical plane is present at surgery, and a gross visual anatomical resection results in a cure.

Conclusions

Ependymoma is a tumor that can be surgically cured if it is small and detected early enough. The clear plane between tumor and spinal cord allows for accurate dissection with minimal post-operative deficits.

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Orthopaedics International, Neurosurgery International and Sports Medicine International are a group of registered specialist practices comprising 8 orthopaedic surgeons, a neurosurgeon and a sports physician. Operating out of 4 locations within Singapore, we aim to provide patients with comprehensive and professional care for all musculoskeletal, neurosurgical and sports-related conditions. Each specialist brings a range of interests, expertise and sub-specializations to the group, and is also a senior doctor with a minimum of 20 to 30 years of relevant clinical experience behind him. We strongly believe in a team approach, so that every patient of ours will be treated with the highest standards of expertise and care that are available.

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