CASE REPORT OF HUGE CERVICAL DUMBELL TUMOR IN NEUROFIBROMATOSIS: Give up surgery?

Joehaimey, J., Ahmad Sabri, O., Mohammad Anwar Hau Department of Orthopaedic, Hospital Raja Perempuan Zainab 2, Kota Bharu, Kelantan

Mohd Ariff Sharifuddin Department of orthopaedic, Universiti Sains Malaysia Kubang Kerian, Kelantan

Introduction

A dumbbell-shaped lesion is a solitary tumor that is confined as it exits the neural foramen. The constriction gives the neurofibroma the appearance of a dumbbell that is caused by weight-bearing neurofibromas that are situated intracranially and are most commonly seen at the cervical and thoracic level.

The intraspinal portion of the tumor may cause spinal cord compression and nerve root failure. The dumbbell tumors were most commonly seen in the cervical spine (44%), followed by the thoracic spine (12%) and the lumbar spine (21%).

The resection of huge dumbbell tumors raises several problems, including preservation of the cervical nerve root, control of the vertebral artery, and maintenance of spine motion curvature.

Case report

14 year old boy, known case of neurofibromatosis type 1. Patient presented with progressive weakness of upper and lower limbs (quadriplegia) for 3 months prior to admission. No history of constitutional symptoms. On examination noted patient to have upper motor neuron lesion at level C3 downward. Right neck swelling of 5.0cm in size at submandibular region.

An initial clinical evaluation showed a severe cervical compressive myelopathy and also a large 7cm diameter palpable mass on the right side of neck. MRI of Cervical Spine and Neck showed an intraspinal extradural and extra axial (paraspinal) tumour on the right side of the neck pushing the spinal cord to the right side. The surgically shaped tumour also extended through the intervertebral foramen (canal) through which the nerve exits to supply the limbs reaching in front of his neck.

Discussion

Tumor removal by a lateral approach still carries a risk of injuring not only the spinal cord but also the anterior, posterior, accessory, or hypoglossal nerves. The posterior approach is a less standard technique for intraspinal lesions. The advantages of a combined posterior and anterior approach for resection of a cervical spinal cord tumor extending into or through the foramen have been described by several authors. McCormick reported 12 patients with cervical spinal Dumbbell tumors who underwent resection via a posterior midline approach, including laminectomy and complete unilateral facetectomy.

He considered these procedures more familiar to surgeons than the anterior approach and also emphasized that posterior exposure provided extensive intraspinal access for adequate exposure of large intradural tumor components. We have chosen to use combined anterior and posterior surgical approach.

Conclusion

Surgical excision of Dumbbell cervical tumor in neurofibromatosis gives good prognosis of the recovery despite of the severity of neurology of initial clinical presentation. 2 stages operation provide safe surgery and minimal morbidity to patient.

References