Unusual Clinical Presentation of Cervical Extradural Meningioma

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Abstract

The Extradural Meningiomas are rare and those in cervical region are extremely rare.1 Mostly they present with quadriplegia.2 We report an unusual clinical presentation of cervical region extradural meningioma in a 20-year old young girl who presented with severe pain in neck and brachalgia. As per our literature search this ours will be the first case report with such unusual presentation.

Keywords: Cervical Spine Meningioma, Epidural Tumors, Extradural Meningiomas.

Introduction

Meningiomas arise from the covering of the spinal cord and are the second most common intradural extramedullary spinal tumors representing 25 % of all such tumors.1 They are small in size but due to confines to the spinal canal they can cause significant neurological dysfunction and usually present with myelopathy.2 The spinal meningiomas have a peak incidence in the fifth and sixth decades. Females are ten times more commonly affected than males. In children, male to female ratio is the same.3 There is an increased incidence of spinal meningiomas in neurofibromatosis type 2 patients.4 Extradural Meningiomas of the Cervical Spine are rare.5 Usually they present with progressive quadriplegia.6 We report a case of unusual clinical presentation of Cervical Extradural Meningioma who presented with neck pain and brachalgia.

Case Report

A 20 year-young girl presented with history of neckache and brachalgia. Examination revealed diminished pinprick in C4 C5 dermatomes.

Figure 1: MRI cervical spine with contrast (Gadolinium)

Figure 2: MRI cervical spine with contrast (Gadolinium)

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There was no power deficit. Rest of the neurological examination was normal. MRI Cervical Spine showed hyperintense lesion at level of C3, 4, 5, 6 on T1 image and homogenously enhancing with gadolinium contrast as shown in Figure.1. The Patient was operated. The tumor was adherent but was separable from the dura and total excision was obtained. Histology showed meningioma with EMA positive on Immunohistochemistry. Axial cuts with contrast showed extradural contrast enhancing lesion extending into C4/5 neural foramen along the nerve root as shown in Figure 2.

Discussion

Among the intraspinal tumors, meningiomas are the second most common tumors. It is four times more common in women than men and usually occurs in the fifth to sixth decades of life. Almost 80% of these tumors arise from the thoracic spine. These spinal meningiomas are intradural extramedullary lesions and are mostly ventrally or ventro-laterally placed. There is an extradural component in almost 10% of the cases but it is rare to have an exclusively extradural meningioma. It is still unclear how meningiomas arise from extradural site and one of the possibility is due to abnormally located meningothelial cells in this region. Mostly extradural spinal lesions are metastatic neoplasms and can also be due to lymphomas and therefore it is essential to make a correct diagnosis and to exclude these extradural lesions to have a proper treatment plan accordingly. In patients having a younger age group and in whom there is a negative metastatic evaluation, other possibilities should be considered such as meningiomas, neurofibromas, schwannomas, chordomas, infectious lesions or synovial cysts.

In the literature reviewed there were 17 case reports of extradural meningioma found. Most of the patients presenting with extradural meningioma were of 14 to 75 years age group, and among these 47% of the patients were younger than 30 years of age. In most of the cases the affected individuals were females (64.7%) similar results were seen in our case. Among the female patients 75% of cases were younger than 30 years of age. This predilection of age along with gender may be due to association of hormonal effects on the growth and development of meningioma. Among various studies, in 52.9% of cases reviewed, the most common site involved was thoracic region and in 41.2% of the cases cervical extradural meningiomas were present. Usually these meningiomas present with progressive quadripareisis and no case of cervical extradural meningioma presenting with neck-ache and brachalgia has been reported.

Conclusion

Cervical extradural meningioma can present in unusual pattern both clinically and radiologically. It should be kept in mind in patients presenting with neck-ache and brachalgia.

References