

Upper Cervical Extradural Meningioma: Case Report

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✓ Extradural lesions are the most commonly encountered metastatic neoplasms. Extradural meningiomas account for 2.7 to 10 % of spinal neoplasms and they are found most often in the thoracic spine. A 60-year-old woman presented to us with non-specific cervical pain for one year. Magnetic resonance imaging of her cervical spine revealed a contrast-enhanced epidural mass extending from C1 to C2 with spinal cord displacement and compression. Computerized tomography of the chest, abdomen, and pelvis revealed no systemic disease. Due to the lesion's unusual signal characteristics and location, an open complete surgical biopsy was performed. Histopathologic diagnosis of the lesion was meningioma. Surgical decompression of the spinal cord and nerve roots was then performed. The tumor was totally removed without any evidence of complications. Meningiomas should be considered in the differential diagnosis of contrast-enhancing lesions in the cervical spine.

Key words: Meningioma, extradural tumor, surgery, cervical

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Üst Servikal Ekstradural Menenjioma: Olgu Sunumu

✓ Ekstradural tümörler genellikle metastatik tümörlerdir. Ekstradural menenjiomalar spinal tümörler içerisinde % 2.7 ile % 10 arasında ve omurgada en sık torasik yerleşimlidir. Altmış yaşındaki kadın hasta bir yıldır devam eden non spesifik boyun ağrısı ile başvurdu. Servikal manyetik rezonans görüntülemesinde C1- C2 arasında spinal kord da kompresyon ve deplasmana neden olan epidural kitle lezyon saptandı. Göğüs, abdomen ve pelvis bilgisayarlı tomografisinde sistemik hastalığa rastlanılmadı. Lezyonun sıra dışı sinyal özellikleri ve konumu nedeniyle, yapılan komplet açık cerrahi sonrası biyopsi sonucu menenjioma olarak tanımlandı. Spinal kord ve sinir kökleri cerrahi olarak dekompresye edildi. Tümör komplikasyon görülmezsizin total olarak çıkarıldı. Menenjiomlar omurgada kontrast tutan lezyonların ayırıcı tanısında akılda tutulmalıdır.

Anahtar kelimeler: Menenjiom, ekstradural tümör, cerrahi, servikal

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Tumors of the spinal column and spinal cord are classified as either extradural or intradural. Intradural tumors are further divided into intramedullary or extramedullary. The commonest intradural extramedullary tumors are schwannomas, neurofibromas, and

meningiomas. Extradural lesions are most commonly metastatic neoplasms ⁽¹⁾. The literature reports the occurrence of extradural meningiomas in 2.7 to 10 % of spinal neoplasms ⁽²⁻⁶⁾, occurring most commonly in the thoracic spine ⁽⁶⁾.

CASE REPORT

A 60-year-old woman complaining of chronic cervical pain for one year was referred to us.

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Figure 1. Sagittal T2 magnetic resonance image showing an enhancing epidural mass from C1 to C2.

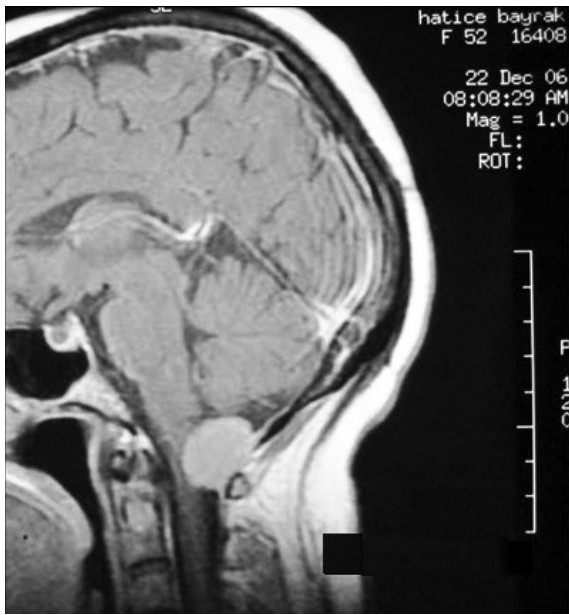


Figure 2. Axial T2 magnetic resonance image showing an enhancing epidural mass with spinal cord displacement and compression.

Magnetic resonance imaging (MRI) revealed an epidural mass extending from C1 to C2 (Figures 1 and 2) on the right side of the spinal canal and neural foramina, with significant spinal cord compression. MRI of neuraxes revealed no other lesion. On physical examination, the patient had full muscle strength and she had no



Figure 3. Postoperative sagittal T2 magnetic resonance image showing total resection of epidural mass.



Figure 4. Postoperative axial T2 magnetic resonance image showing total resection of epidural mass.

apparent sensory deficits, pathologic reflexes, or long tract signs. In this case, metastatic

evaluation revealed no additional lesions. An open biopsy was performed through a C1-C2 full laminectomy. Pathological examination revealed a meningioma which was resected 2 weeks later. Tumor was totally excised (Figures 3 and 4). There was no postoperative neurological deficit. The patient was followed by serial MRIs performed at every 3 months. At the most recent follow-up (6-months postop), she had no evidence of recurrence and did not report any symptoms.

DISCUSSION

Individuals who present with extradural lesions need to have a metastatic process excluded, including a hematopoietic disease. In this group of younger patients, with a negative metastatic evaluation result a wider range of abnormalities must be considered in the differential diagnosis. Additional possibilities include schwannoma, neurofibromas, chordoma, synovial cyst, infectious processes, and meningioma ⁽⁷⁾. A nerve sheath lesion (neurofibroma/schwannoma) initially considered in the differential diagnosis, was ruled out because the signal characteristic illustrated that the mass was extradural and not contiguous with the neural element ⁽⁷⁾. On MRI examination chordomas are usually isointense relative to the marrow on a T1-weighted sequences, but in this case the lesion was isointense relative to the spinal cord and did not appear to arise from a bony element ⁽⁷⁾. Synovial cysts are contiguous with the joint, spherical in shape, and generally not larger than 1 to 2 cm ⁽⁷⁾.

Cervical extradural meningiomas are usually more common in women at a younger age ⁽⁶⁾. This finding suggests the impact of hormonal factors in the development of meningioma.

The preexisting history of trauma associated with meningiomas has been previously reported ^(8,9). Our patient had no history of trauma.

Although, the role of trauma in the development of meningioma as a primary factor is less likely, it is obvious to say that there is a need for further studies.

Authors have suggested worse prognoses for patients with extradural meningiomas because of the difficulty in completely removing the tumor. They suggested that location of the tumor and invasion of the dura complicates complete resection, and leads to the emergence of recurrences ⁽⁶⁾. If complete resection is possible, there may be no difference in patients' prognoses ⁽⁶⁾. Here, radical removal of the tumor with dural tail, is a significant complication which might occur during surgery. Therefore extreme caution should be exercised during surgery. Still in the literature similar surgical complications have been reported in 3 cases with upper cervical extradural meningiomas. Cervical extradural meningioma might course with rapidly progressive myelopathy ^(4,10,11). Gross surgical resection of these tumours should be targeted in cases of emergency.

CONCLUSION

Extradural meningiomas are rare but should be included in the differential diagnosis of extradural masses. Prognosis relates to the extent of resection. If considered safe, complete resection should be attempted to decrease risk of recurrence.

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