INTRODUCTION

Spinal chondrosarcoma is an extremely rare malignant tumor, characterized by cartilage-forming. Chondrosarcomas compose 7% to 12% of all primary spine tumors and one forth of primary malignant spine tumors. In the spine, the common site of chondrosarcoma is the thoracic spine, followed by lumbar and cervical spine. Growth pattern of chondrosarcoma is usually indolent, and the most common presenting symptom is focal pain. There is no previous reported case of spinal chondrosarcoma, which is presented with sudden progressive paraplegia, due to acute hemorrhage and exophytic expansion into the epidural space. We named it chondrosarcoma apoplexy because it is a similar condition with that of the pituitary apoplexy, which causes neurological problems, such as visual loss.

CASE REPORT

A 52-year-old man was admitted to the emergency room with sudden paraplegia. Twelve hours prior to such paraplegic event, he visited an outpatient clinic. At that time, he just complained of discomfort and tenderness around the medial border of the right scapular, and his neurologic status was absolutely intact. Magnetic resonance imaging showed a lobulated soft tissue mass from T3 to T5, which extended to the epidural space. Computed tomography scans showed soft tissue mass on the spinal posterior arch and osteolytic change of the adjacent bony structures. Emergent surgery was performed and the lesion was removed. Dark reddish blood and gel-like material were encountered around the dura and posterior arch during the operation. Multiple pulmonary nodules were found on a chest CT scan and a biopsy of one of them had been proven to be a metastasis of chondrosarcoma. The histologic examination showed dedifferentiated chondrosarcoma. The patient's neurologic deficit was improved slowly from ASIA A to ASIA D. Chondrosarcoma in the spine is extremely rare, even more with acute hemorrhage and sudden expansion into the epidural space. We named it chondrosarcoma apoplexy. We should consider the possibility of a hemorrhagic event when the patient's neurologic deficit worsens suddenly with spinal bone tumor.

Key Words : Chondrosarcoma · Spine · Paraplegia · Hemorrhage · Pulmonary metastasis.
Chondrosarcoma Apoplexy in Thoracic Spine | SW Kim, et al.

ated chondrosarcomas are aggressive and frequently metastasize to other sites. Chondromas and other sarcomas, including osteosarcoma, leiomyosarcoma, and rhabdomyosarcoma, should be considered as differential diagnosis. The goal of the treatment is to excise the lesion as completely as possible. Although these tumors are resistant to adjuvant chemotherapy and radiotherapy, hypofractionated stereotactic radiation therapy may be useful for tumor recurrence and palliation.

In our case, the mass was located mainly in the posterior arch of T3 and T4, T5 and extended to the epidural space. It was composed of multi-lobulated mass, combined with hemorrhage. There is no previous reported case of spinal chondrosarcoma that is presented with sudden progressive paraplegia, due to acute hemorrhage and exophytic expansion into the epidural space. We named it chondrosarcoma apoplexy because it is a similar condition with pituitary apoplexy that causes acute visual loss.

CONCLUSION

Chondrosarcoma is an uncommon disorder that rarely involves the spine and previously has never been associated with sudden paraplegia with acute hemorrhage and expansion into the epidural space. When radiologic studies show a lobulated mass with extension into the surrounding tissue and osteolytic change, chondrosarcoma should be included in the differential diagnosis along with more common spinal tumors such as osteosarcoma, chordoma, and chordoid meningioma.
diagnosis of primary spinal bone tumor, although its occurrence at this site is extremely rare. Furthermore, we should realize the possibility of hemorrhage and sudden expansion when the patient’s neurologic deficit developed suddenly.

References