INTRODUCTION

Angiosarcoma is a rare malignant vascular tumor, which may originate in face and scalp, liver, skin and other soft tissues. Metastatic angiosarcomas of central nervous systems are rare, a few cases have been reported and their prognosis were poor. We report here one case of cerebral metastatic angiosarcoma from the heart. This patient showed the poor prognosis with rapid clinical course even in combined treatment to the metastatic lesions. We would like to describe the radiologic findings of metastatic cerebral angiosarcoma and the rapid clinical course.

CASE REPORT

A 36-year-old man presented with 10-days history of headache. On admission, his neurological examination was within normal ranges. A computed tomography (CT) of the head showed the intracerebral hemorrhage of subacute stage on right parietal area (Fig. 1A). Magnetic resonance imaging (MRI) demonstrated a heterogeneous mixed signal intensity lesion on T1-weighted images with a small region of enhancement in right parietal region. The lesion showed heterogenous mixed signal intensity on T2-weighted images (Fig. 1B-D). Provisional diagnosis was a hemorrhage from cavernous angioma. The mass was totally removed. The pathological diagnosis was a giosarcoma, which was highly cellular with cellular atypia and frequent mitosis (Fig. 2A). On immunohistochemistry, the tumor was positive for CD34, factor VIII, actin, CD31 and Ki-67 labeling index was high at 80% (Fig. 2B-E). For evaluation of primary cancer, we checked positron emission tomography-computed tomography, which showed the hot uptake of right atrial wall and right iliac bone. Transthoracic echocardiography demonstrated 3.2×3 cm sized mass on right atrial wall. Newly developed lesion was reoperated, three and four weeks later respectively, and whole brain radiotherapy of total 30 Gy was done. With the interval of two months, gamma knife surgery was done for new lesions two times, which were well controlled. Newly developed lesions rapidly happened even in the adjuvant treatment. He died 9 months after the diagnosis because of the aggravation of primary cancer. The cerebral metastatic angiosarcoma from the heart showed the rapid aggressive behavior and the closed follow-up could be needed for the adjuvant treatment.

Key Words : Angiosarcoma · Cerebral · Heart · Metastasis.
DISCUSSION

Angiosarcomas are rare malignant tumor originating from endothelial cells of arteries, veins, and lymphatic channels and are one of the most rare type of human tumors\(^9,20\). These tumors constitute less than 1% of all sarcomas which usually locate in the head, face, liver, skin, and soft tissue. Primary and secondary cerebral angiosarcomas have been rarely reported and one study summarized these rare tumors\(^16\). Metastatic cerebral angiosarcomas are more frequent than primary angiosarcomas and most often occur in the right atrium. Angiosarcomas of the heart are common cardiac sarcoma. In the previous study of Donsbeck et al.\(^7\), angiosarcoma was the second most frequent histological type of cardiac sarcoma and occurred more frequently in men, with a common age of presentation between the third and fifth decades of their lives. Metastatic lesions often manifest prior to the diagnosis of cardiac angiosarcoma\(^13,20\). Metastases occur to the lung, liver, central nervous system and bone. This case was a cerebral metastasis from an-
Metastatic cerebral angiosarcoma showed the rapid clinical courses and closed follow-up could be needed for the adjuvant treatment.

References
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