뇌신경재활

게시일시 및 장소 : 10 월 19 일(토) 08:30-12:30 Room G(3F)

질의응답 일시 및 장소 : 10 월 19 일(토) 11:00-11:30 Room G(3F)

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Subarachnoid hemorrhage caused by Arteriovenous fistula in Anterior spinal artery ; A case report

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Background

Subarachnoid hemorrhage (SAH) is one of the most important differential diagnoses in the emergency department. Most of patients with intracranial SAH come to emergency room due to ruptured aneurysm or perimesencephalic hemorrhage. However approximately 5% of patients experience intracranial SAH with cause other than them. One of these rare causes is a Spinal Dural Arteriovenous Fistula (DAVF). Spinal DAVF are the most commonly encountered vascular malformation of the spinal cord. Despite the most common case, spinal DAVFs are still underdiagnosed disease entities, which, if not treated properly, can lead to considerable morbidity. Here, we present a rare case of high cervical spinal cord dural arteriovenous fistula in anterior spinal artery which caused intracranial SAH.

Case report

A 64-year-old woman came to the emergency room with abruptly developed headache. Brain computed tomography (CT) and CT angiography presented SAH and Intraventricular hemorrhage (IVH). And Vertebral angiography (VA) was conducted for further evaluation, which resulted spinal DAVF from anterior spinal artery was ruptured at upper cervical area in VA. The drainage of spinal DAVF to tortuous dilated radiculomedullary vein was noted. External ventricular drainage (EVD) and embolization were performed. There were difficulties in entering the microcatheter in to the fistula selectively, the glue embolization was performed at the proximal feeding artery level. Subsequently, she was suffering from quadriplegia, and Trace/Trace was checked in manual muscle test (MMT) conducted at that time. One week later, Brain CT was perfomed for evaluation and revealed marked resolution of acute SAH &IVH, and there was no hydrocephalus. Then, EVD was removed. Two months later, she was transfered to B hospital for comprehensive rehabilitative treatment. In the physical examination conducted at that time, Korean-Mini Mental state Examination(K-MMSE) =16 points and MMT= Trace/Trace were identified. A physical examination conducted five months later showed improvement with K-MMSE=24, but the MMT was consistently identified as Trace/Trace. Cervical spine MRI was conducted and encephalomalacic change was found in medulla oblongata. 8 month later, Brain MRI was conducted for follow-up. There was no change of encephalomalacia in medial aspect of both medulla oblongata.

Conclusion

We report a rare case of ruptured spinal dural arteriovenous fistula on high cervical spinal cord induced intracranial subarachnoid hemorrhage. If other sources of bleeding are not found in intracranial Subarachnoid patients, the bleeding caused by the Cervical dural anteriovenous fistula should be considered.