

척수재활

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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A Case of Hemiplegia following Cervical Spondylotic Myelopathy accompanied by Cerebral Infarct

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Introduction

Cervical spondylotic myelopathy is one of the most frequent causes of neurological impairment in the elderly population. Cerebral infarction is another common disease inducing neurological impairment in elderly populations. The concomitant occurrence of cervical myelopathy and cerebral infarction is very rare. Therefore, it is difficult to differentiate the cause of motor weakness with cerebrovascular disease in myelopathy patients. We report a rare case of cervical spondylotic myelopathy accompanied by cerebral infarct.

Case

A 62-year-old man with DM and spinal stenosis visited the neurosurgery outpatient clinic as a chief symptom of tingling sensation and motor weakness in left upper and lower extremities for 10 months. C-spine MRI revealed central disc extrusion in C6,7 level, causing left cord compression (Fig. 1). He was admitted to department of neurosurgery for operation. The neurosurgeon requested to perform Electromyography (EMG) and somatosensory evoked potentials (SEP). At the time of test, there was spasticity on his left upper extremity, which was that the left elbow flexed and the forearm pronated. Gait was similar to hemiplegic pattern due to his foot drop during swing phase. The deep tendon reflex of left biceps was hyperreflexic. EMG findings were compatible with left C6,7 radiculopathy. SEP study showed decreased amplitude in left median and posterior tibial nerve (Table 1). Therefore brain workup was recommended but not performed at that time. He underwent C6 to C7 spinal fusion. Surgical findings showed massive ruptured disc at C6,7 was compressing the spinal cord. At that time, MRC grades were 2/5 in the left side and 4/5 in the right side. On sensory examination, there was diminished sensation to light touch and pinpricks below C4 on the left and below L4 on the right. His ASIA impairment scale was D and neurologic level was C4. After surgery, he was transferred to the department of physical and rehabilitation medicine for intensive rehabilitative therapy. There was no change in the spasticity and motor weakness of the left side. He had slurred speech. So brain MRI was performed, it revealed acute infarction in right basal ganglia and old infarction with old hemorrhage in right fronto-parietal lobe (Fig. 2). The TFCA

performed by the neurologist showed right ICA occlusion. Therefore he was started on Aspirin® and Plavix®.

Conclusion

In this case, the patient had a history of spinal stenosis on cervical spine, and MRI revealed presence of a cervical myelopathy. The neurosurgeon initially suspected the motor weakness of left upper and lower extremities for spinal lesion only. However, physical examination showed that motor weakness and spasticity of the left side was apparent, we took the brain MRI and confirmed cerebral infarction. So, we report this case to emphasize the importance of careful examination to differential diagnosis when there is concomitant lesion of cervical myelopathy and cerebral infarct.

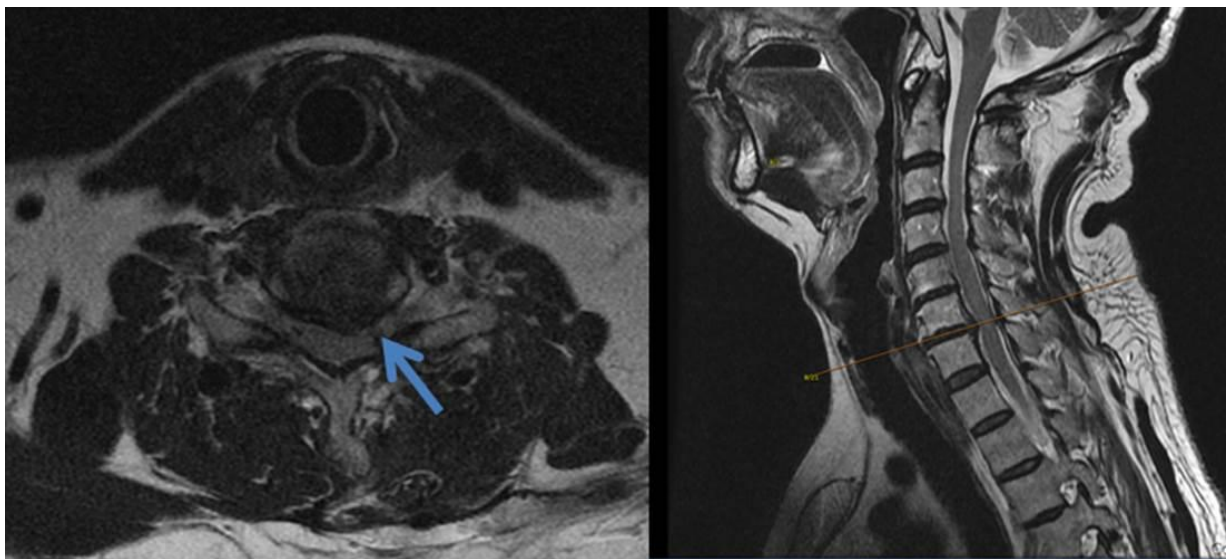


Figure. 1. Cervical spine MRI revealed left anterior spinal cord compression at C6-7 levels. (a) T2 high-resolution axial weighted image at C7 level (b) T2 high-resolution sagittal weighted image at C7 level

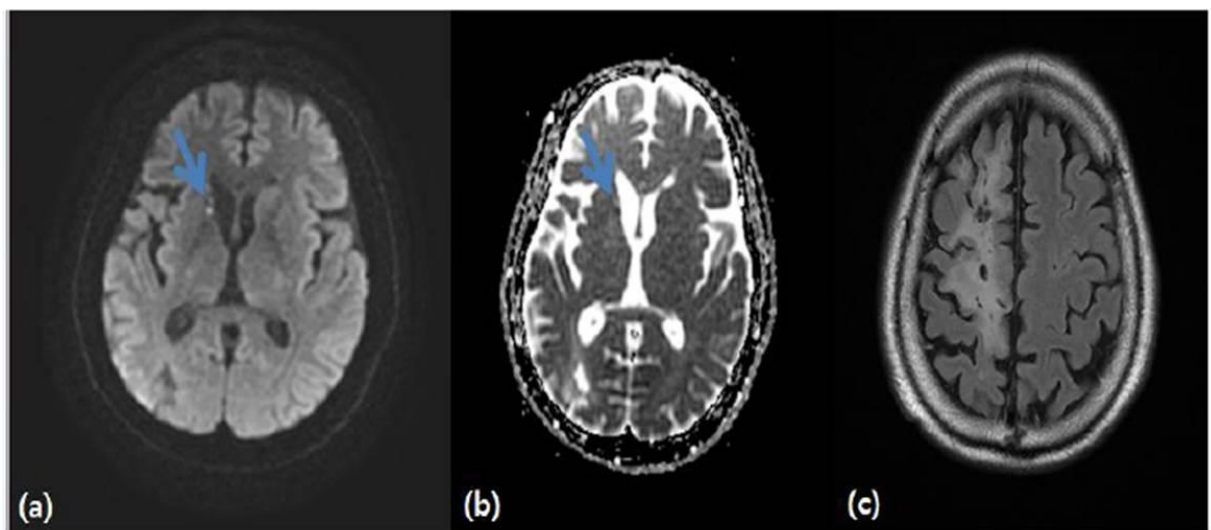


Figure. 2. Brain MRI revealed tiny acute infarction in right basal ganglia (a,b). Brain MRI revealed old infarction with old hemorrhage in right fronto-parietal lobe (c). (a) Diffusion weighted images of the brain (b) Apparent diffusion coefficient images of the brain (c) T2 FLAIR image of the brain * FLAIR: fluid attenuated inversion recovery

Table 1. Somatosensory Evoked Potentials (SSEP) Study

Somatosensory Evoked Potentials (SEP) Study				
Nerve	Right side		Left side	
	Latency (ms)	Amplitude (μ V)	Latency (ms)	Amplitude (μ V)
Median	19.0	1.2	20.4	0.7*
Post. tibial	37.7	1.7	38.3	1.1*