Left shoulder pain in patients with old myocardial infarction could be a neuropathic pain from spinal epidural haematoma

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DESCRIPTION

A 66-year-old Japanese man with medical history of old myocardial infarction and on daily aspirin presented to the emergency department with sudden onset of severe left shoulder pain. He reported no prior trauma and denied cold sweat, vomiting, chest or back pains. At the time of initial evaluation, cardiac and neurological examinations were normal and there was no tenderness over the shoulder joints or the spine. A diagnosis of acute myocardial infarction or aorta dissection was first suspected. However, ECG, serum troponin T concentration and contrast-enhanced CT of the chest showed negative results.

The patient was admitted to the emergency department under the diagnosis of possible acute coronary syndrome. But, several hours later, he suddenly developed mild weakness of the left upper and lower extremities without facial muscle involvement. Urgent MRI revealed cervical spinal epidural haematoma (SEH) with spinal cord compression mainly to the left side (figure 1). The patient underwent decompression laminectomy. Aspirin was considered as a contributing factor to the development of haematoma and thus it was discontinued for a week. The patient was restarted with aspirin 1 week after the operation since

we considered it was important to prevent myocardial infarction and the patient agreed with our plan. He was discharged home free from neurological symptoms after a course of rehabilitation.

In the current case, acute-onset left shoulder pain was initially suspected as a referred pain from acute coronary syndrome or acute aortic dissection, but later it was identified as neuropathic pain from SEH. Spontaneous SEH is relatively rare, but, if not timely diagnosed and appropriately treated, it can lead to irreversible neurological deficits. Although left shoulder pain is commonly considered as a referred pain from acute coronary syndrome among patients, such as the current patient with old myocardial infarction, at high risk for cardiovascular events. Neuropathic pain from SEH should be considered as an important differential diagnosis with potentially serious neurological deficits, since it may develop spontaneously among patients on daily aspirin.^{1 2} MRI is a diagnostic test of choice for SEH. Urgent surgical decompression should be considered for patients with the development of neurological deficits.

Figure 1 MRI showing epidural haematoma (white arrow) which compresses cervical spinal cord.

Patient's perspective

I would like my case to be shared for doctors in the world for improving diagnosis of this serious condition which I experienced.

Learning points

- ▶ Shoulder pain without tenderness could be a referred pain or a neuropathic pain.
- ▶ Left shoulder pain could be a symptom suggestive of spontaneous epidural haematoma of the cervical spine in patients on daily aspirin.

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