

Spinal Infarction Following Myocardial Infarction: A Case Report

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Submitted: 09.05.2019
Accepted: 22.08.2019

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Keywords: Myocardial
infarction; paraplegia;
spinal infarction.



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ABSTRACT

Myocardial infarctions (MI) has many complications and spinal infarction is one of them. Although spinal infarction is rare, we should keep in mind that spinal infarction is a possible complication after MI.

INTRODUCTION

Myocardial infarctions (MI) may cause many complications. Spinal infarctions are one of the rarest complications of MI. In this study, we reported a case of 74-years old-woman presenting to the emergency department with paraplegia.

CASE REPORT

The patient had MI a week ago before his admission to the hospital and was hospitalized after percutan coronary angiography (PCA). Her previous medical history included under control hypertension and type 2 diabetes mellitus.

After the PCA, she started to complain of paresthesia and paraplegia ascending from the lower limbs and reaching up to her upper limbs. She had been consulted by a neurologist. At first sight, neurologists thought it would be a “Guillan Barre Syndrome”.

The patient’s family asked for a different hospital for the treatment because of living in another city. We admitted

the patient on her seventh day after PCA. Physical examination showed the following outcomes: lethargy, paraplegia and paresthesia. Bilateral deep tendon reflexes at the upper body were +/+ while at lower body -/-, no neck rigidity was observed and light reflection was +/-.

Contrasted spinal magnetic resonance was performed: MRI showed typical signal changes on t2WI compatible with cervical spine infarct. She was hospitalized and was started on anticoagulants, but there was no improvement in her complaints and was discharged paraplegic.

DISCUSSION

The most seen complications of acute myocardial infarction include papillary muscle rupture, ventricular septal rupture, acute and subacute free-wall rupture, and hemodynamically significant right ventricular infarction.^[1] Besides these samples, some other rare complications may occur, such as Dressler’s syndrome or shoulder syndrome.^[2] In our case, the patient presented with one of the rarest complications of MI.

Spinal cord infarction is difficult to diagnose. Its etiologies include atheroembolic disease, complications from an aortic aneurysm, repair aortic dissection and vasculitis.^[3] Patients often complain of sudden and severe back pain associated with weakness, paresthesias and sensory loss. Weakness usually occurs bilaterally. Thoracic spinal cord infarction (especially high level) include upper back pain and chest pain, which can be mistaken for emergent cardiopulmonary conditions, including acute myocardial infarction, pulmonary embolism, aortic dissection and pneumothorax. The neurological deficits may occur without pain, but most spinal infarcts are painful. This is a difference from cerebral infarction, which is usually not painful.^[4]

MRI is the most sensitive and reliable option to detect spinal cord infarction. Currently, there is no treatment that is known to facilitate an improvement in patients who have spinal cord infarction. Treatment focuses on risk factors and rehabilitations.^[5]

Informed Consent

Written informed consent was obtained from the parents of the patient for the publication of the case report and

the accompanying images.

Peer-review

Internally peer-reviewed.

Conflict of Interest

None declared.

REFERENCES

1. Reeder GS. Identification and treatment of complications of myocardial infarction. *Mayo Clin Proc* 1995;70:880–4. [\[CrossRef\]](#)
2. Hubbard J. Complications associated with myocardial infarction. *Nurs Times* 2003;99:28–9.
3. Salvador de la Barrera S, Barca-Buyo A, Montoto-Marqués A, Ferreira-Velasco ME, Cidoncha-Dans M, Rodriguez-Sotillo A. Spinal cord infarction: prognosis and recovery in a series of 36 patients. *Spinal Cord* 2001;39:520–5. [\[CrossRef\]](#)
4. Cheshire WP, Santos CC, Massey EW, Howard JF Jr. Spinal cord infarction: etiology and outcome. *Neurology* 1996;47:321–30.
5. Robertson CS, Foltz R, Grossman RG, Goodman JC. Protection against experimental ischemic spinal cord injury. *J Neurosurg* 1986;64:633–42. [\[CrossRef\]](#)

MI Sonrası Gelişen Spinal İnfarkt: Bir Olgu Sunumu

Miyokart infarktüsü (MI) birçok komplikasyona sebep olabilir. Spinal infarkt MI'nin nadir komplikasyonlarından olmasına rağmen nörolojik semptomlarla gelen hastalarda özellikle akılda tutulması gerekir.

Anahtar Sözcükler: Miyokart infarktüsü; parapleji; spinal infarkt.