Spinal Cord Ischemia Secondary to Aortic Dissection: Case Report with Literature Review for Different Clinical Presentations, Risk Factors, Radiological Findings, Therapeutic Modalities, and Outcome

Hosna S. Elshony, Abdelrahman Idris, Alaa Ahmed, Murouj Almaghrabi, Walaa Ahmed, Shouq M Fallatah

Corresponding author: *H. Elshony (Hosna.saad28@gmail.com), Security Forces Hospital Makkah, Saudi Arabia*

ABSTRACT

Background: Aortic dissection (AD) is a serious condition that causes transient or permanent neurological problems that include spinal cord ischemia (SCI), which occurs when AD extends into the descending aorta resulting in insufficient perfusion of segmental arteries that supplies the spinal cord.

Case description: We report a 64-year-old male, presented with severe back pain, asymmetrical paresthesia, and weakness of both limbs, more in the left lower limb with loss of pinprick, temperature, and fine touch sensation on the lower left lower limb below the level of T5 with preserved proprioception and vibration and urine hesitancy. Computed tomography showed AD, Stanford type A, and spinal magnetic resonance imaging (MRI) showed hyperintense owl's eye sign at T5. The patient was diagnosed as anterior spinal artery syndrome secondary to an AD and referred for aortic surgical repair with good functional outcome.

Results: In our review to cases of SCI due to AD, it was more common in males above 55 years, pain only found in 47.8% of patients, with anterior cord syndrome on top of the clinical presentations, and hypertension is the most common risk factor. MRI spine showed thoracic location predominance. Surgical or endovascular repair especially for type A and complicated type B should be considered to avoid complications, and cerebrospinal fluid drainage is a very useful tool in reversing SCI specially if done early with favorable outcome. Only the old age is associated with increased risk of mortality. Early diagnosis and appropriate management are crucial for better outcome.

BIOGRAPHY

Hosna Elshony is a Neurology Professor in Menoufiya University, Faculty of Medicine, Egypt and Neurology Consultant in Security Forces Hospital Makkah, Saudi Arabia. She has many researches in different subspecialties of neurology. She is a dedicative physician and Professor

Last Publications:

1. Ischemia-modified albumin for evaluating severity and predicting prognosis in patients with acute cerebrovascular disease. Menoufia Medical Journal, 2020, 1072-1076.
2. Omalizumab Induced Acute Motor Conduction Block Neuropathy: Case report and literature review, European journal of Neurology volume 27, suppl. 1, 2020, E-poster.
3. Intracerebral Hemorrhage (ICH) in patients with Neuromyelitis Optica (NMO): Case Report with Literature Review for Possible Pathological Association. Karger case report in Neurology, accepted for publication in December, 2020.

4. Paradoxical Role of Hepatocyte Growth Factor in ischemic stroke: Stroke risk/ Stroke Recovery": accepted for publication in The Egyptian Journal of Neurology, Psychiatry and Neurosurgery, August 2021.
5. Determinants of quality of life changes with plasmapheresis in patients with myasthenia gravis: published in The Egyptian Journal of Neurology, Psychiatry and Neurosurgery, MAY 2021.
6. Spinal Cord Ischemia Secondary to Aortic Dissection: Case Report with Literature Review for different clinical presentations, risk factors, radiological findings, therapeutic modalities and outcome": accepted for publication in Karger case report of neurology, June 2021.
7. (Subacute Herpes Simplex type 1 Encephalitis: Two Case Reports with Literature Review: accepted for publication in The neurologist, March 2021.

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