# Acute Aorta Dissection Associated with Dysarthria and Urinary Incontinance: A Case Report

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### **ABSTRACT**

Urinary incontinence, the involuntary release of urine, is usually a symptom of a dysfunction of the lower urinary system. Dysarthria is a disorder in which the regulation of speech is affected; there is an abnormality in the production and coordination of the speech, and the disorder is characterized by poor articulation. It may develop as a result of damage to the central and/or peripheral nervous system. The most common reason for dysarthria is a stroke. Cases of aortic dissection may present with various clinical presentations, which can cause a delay during the examination at the hospital. This report is a description of a patient with aortic dissection presenting with neurological symptoms.

# INTRODUCTION

Urinary incontinence, the involuntary leakage of urine, is usually a symptom of a dysfunction of the lower urinary system; however, it may also be a sign of several other conditions. The cause and severity vary.

Dysarthria is a clinical sign. It is characterized by difficulty controlling, initiating, and maintaining speech. Dysarthria can develop as a result of damage to the central and/or peripheral nervous system. There are numerous possible causes; however, the most common is a stroke. Description

Aortic dissection is a tear in the aorta that allows blood to flow between the layers of the aortic wall, forcing the layers apart. In most cases this is associated with a sudden onset of severe chest or back pain; however, the clinical presentation may vary, which can lead to a delay during the examination. Presently described is a case of aortic dissection with neurological symptoms.<sup>[3]</sup>

### CASE REPORT

A 47-year-old female patient presented at the emergency service with urinary incontinence ongoing for 2 days.

Dysarthria had also been noticed by people close to patient. Two days prior, the patient had approached another emergency service with the complaints of syncope and urinary incontinence. There were no abnormal findings in the blood tests or a brain tomography performed, and so she had been discharged.

The patient's vital signs were: blood pressure: 130/80 mmHg, saturation of peripheral oxygen: 98%, pulse: 102 bpm, and body temperature: 36.5°C. The systemic examination revealed no lateralization finding or deficit in the motor or sensory nervous system. The electrocardiogram result was 100–110 bpm, with sinus tachycardia. There was no chest or back pain or dyspnea.

The conditions suggested that there must be a pathology of the central nervous system; therefore, cranial diffusion magnetic resonance imaging was performed. Bilateral multiple lacunar infarcts were detected around the lateral ventricle (Fig. 1a).

The patient was also scheduled for a thoracic computed tomography (CT) image with contrast to explore for a possible pulmonary embolism, due to her history of syncope 2 days earlier. The CT image revealed a dissection

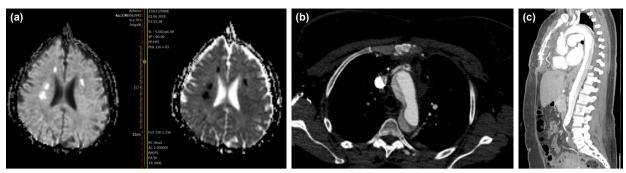


Figure 1. (a) Diffüsion MR imaging. (b) Aortic dissection seen on the bifurcation of aorta. (c) Aortic dissection, true and false lumens seen on CT.

from the ascending aorta to the carotid and iliac arteries (Fig. 1b and c).

The patient's vital signs were stable and there was still no manifestation of chest or back pain; however, a consultation was performed with the departments of neurology and cardiovascular surgery. Urgent cardiovascular surgery was scheduled. After the operation, the patient stayed in the intensive care unit for 3 days and was released in good condition I week later.

### **DISCUSSION**

Aortic dissection cases usually present to emergency services with noisy manifestations. [4] However, it should be kept in mind that they may also appear with neurological symptoms, such as syncope, stroke, vertigo, paraplegia, or quadriplegia.

### **Informed Consent**

Written informed consent was obtained from the patient for the publication of the case report and the accompanying images.

# Peer-review

Internally peer-reviewed.

### **Authorship Contributions**

Concept: E.Y., Design: M.H.G., Data collection &/or processing: A.U.S., H.K.Ö.K.; Analysis and/or interpretation: E.Y., A.U.S.; Literature search: S.K.; Writing: S.H., A.U.S., M.H.G.; Critical review: S.K., S.H., H.K., Ö.K.

### Conflict of Interest

None declared.

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# Dizartri ve Üriner İnkontinans ile Gelen Akut Aort Disseksiyonu

Üriner inkontinans, istemsiz idrar kaçırma, genellikle alt üriner sistem disfonksiyonunun bir semptomudur. Dizartri konuşmanın artikülâsyonunu etkileyecek şekilde konuşmaya başlama, konuşmayı sürdürebilme, konuşmanın kontrol ve düzenlenmesinde bozulma ile seyreden bir konuşma çıktısı bozukluğudur. Dizartri, santral ve/veya periferik sinir sisteminin hasarına bağlı olarak gelişir. Konuşmanın üretim boyutunda anormallik ve koordinasyon bozukluğu vardır. Dizartrinin en sık nedeni inmedir. Tutulum yerine göre farklı klinik prezentasyonlarla başvurabilen aort diseksiyon olguları, tanı esnasında gecikmeye sebep olabilir. Bu olgu sunumunda, nörolojik bulgularla başvuran aort diseksiyonundan bahsedilecektir.

Anahtar Sözcükler: Aort disseksiyonu; disartri; üriner inkontinans.