Syncope in a Patient with Giant Bladder Diverticulum

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Abstract

Syncope is common in clinical practice, but the cause is often difficult to diagnose. We report a 75-year-old man who was referred to the emergency department because of syncope after an urgent sensation of urinating during jogging. He was finally diagnosed as having a giant bladder diverticulum due to prostatic hyperplasia accompanied by neurally mediated syncope. Excessive urinary retention is a possible cause of not only giant bladder diverticula but also syncope due to vagal enhancement.

Key words: bladder, diverticulum, syncope


Introduction

Syncope is a common complaint in clinical practice, but the cause varies and is not easy to diagnose (1). We report a patient with a giant bladder diverticulum, who was referred to our emergency department because of the loss of consciousness. The mechanism linking syncope and the giant bladder diverticulum in the present patient was thought to be excessive urinary retention due to prostatic hyperplasia.

Case Report

A 75-year-old man was referred to the emergency department of our hospital because of syncope. He tried to urinate several times at night a day before admission, but he had not been able to urinate for an unknown reason. The patient lost consciousness for a few minutes after an urgent sensation of urinating while he was jogging early in the morning. He had a history of hypertension and hyperuricemia that had been well controlled with nifedipine (40 mg once daily), telmisartan (40 mg once daily), hydrochlorothiazide (12.5 mg once daily), and allopurinol (100 mg twice daily).

On examination, the patient appeared alert without neurological deficits. His blood pressure was 156/76 mmHg, his pulse was 100 beats per minute and regular, and oxygen saturation was 95% while he was breathing ambient air. The heart sounds were slightly rapid with no murmur or gallop, and the lower abdomen was slightly distended. The remainder of the examination was normal.

Electrocardiography showed a left bundle branch block that was unchanged, and subsequent echocardiography revealed normal findings except for abnormal septal wall motion, which is frequently observed in patients with left bundle branch block. Blood examination, chest X-ray, and brain computed tomography were unremarkable. Ultrasonography examination revealed a hypertrophic bladder wall (Fig. 1, arrowheads) and a large cystic mass that was directly connected to the inner cavity of the bladder (Fig. 1, arrow). Abdominal computed tomography showed that the size of the abnormal mass was 109×106×79 mm (Fig. 2, asterisk). The lower abdominal distension and discomfort disappeared immediately after insertion of a urinary catheter.

He was finally diagnosed as having a giant bladder diverticulum with chronic urinary retention due to prostatic hyperplasia accompanied by neurally mediated syncope. He underwent transurethral resection of the prostate and cautery of the diverticulum. He has remained well without syncope for more than half a year.

Discussion

Bladder diverticula can be congenital or acquired, and the latter is common in middle age or older men because of the high incidence of urinary retention due to prostatic hyperplasia (2, 3). Chronic bladder distention is a possible cause not only of giant bladder diverticula but also of syncope due to vagal enhancement (4), which has also been suggested as
is the first report of giant bladder diverticula as a clue to the diagnosis of neurally mediated syncope. Careful history taking and physical examination (i.e., lower abdominal distention) led us to the diagnosis without delay.

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References