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CORRESPONDENCE

Nutcracker Syndrome Discovered after Syncope with Abdominal Pain as a Prodromal Symptom

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To the Editor: Nutcracker syndrome (NCS) is a condition wherein the left renal vein is compressed by the aorta and the superior mesenteric artery. Syncope has been reported only in two NCS cases. We report a girl with NCS and syncope.

A 13-y-old girl without medical history experienced four episodes of syncope secondary to abdominal pain. Urinalysis revealed microscopic hematuria. Ultrasonography and enhanced CT revealed NCS and pelvic congestion syndrome (PCS). A thorough examination did not indicate other diseases that could cause syncope. The patient received nutritional therapy and her weight and body mass index subsequently increased. Microscopic hematuria disappeared, and the frequency of abdominal pain decreased to once every 6 mo during the 2-y follow-up period. There were no episodes of syncope.

To date, only 2 cases of syncope caused by NCS have been reported. The first case involved a 14-y-old girl with a history of syncope attributed to orthostatic disturbance. NCS may cause symptoms similar to orthostatic disturbance [1]. The second case involved a 19-y-old girl with recurrent syncope diagnosed with NCS after an examination of hematuria. She was anorexic and prone to vomiting due to NCS; therefore, hypovolemia caused syncope [2]. In the present case, pelvic vein congestion led to vasovagal reflex induced by pain due to NCS and PCS, and syncope occurred secondary to pain. To treat NCS, the pressure on the left renal vein must be relieved. In particular, the symptoms in children can improve over time with nutritional therapy. Hematuria improved in 90% of pediatric patients with NCS, with an average follow-up of 1.9 y [3].

NCS can cause syncope secondary to abdominal pain, which is a prodromal symptom. Therefore, this should be considered in patients with a chief complaint of syncope secondary to abdominal pain. In such cases, nutritional therapy can improve symptoms.

Declarations

Conflict of Interest None.

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