

A case of threatened rupture of abdominal aortic aneurysm occurred with intractable low back pain

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Abstract

A patient, a 55-year-old man, was treated for lumbar spinal canal stenosis. Because acute left loin pain developed, he was hospitalized. The neurological findings revealed the phenomenon of diminishment of the left knee. Lasègue's sign was present in the left leg, and the Valleix pressure point of the left buttock. The low back pain resisted treatment. The pain was shown to be caused by a saccular abdominal aortic aneurysm in an abdominal contrasting CT. The patient was diagnosed with a threatened rupture of an abdominal aortic aneurysm. He underwent intravascular surgery using a stent graft. When radiculopathy and sciatica are suspected, it is necessary to differentiate abdominal aortic aneurysm.

Keywords: lumbar spinal canal stenosis, loin pain, threatened rupture, abdominal aortic aneurysm, radiculopathy

Introduction

The abdominal aortic aneurysm is caused by weakness of the artery wall and is often associated with atherosclerosis. Smoking, hypertension, advanced age, being male, and a family history are considered to be risk factors. Approximately 4% of adults 65 years or older have an abdominal aortic aneurysm. In later years, cases of ruptured aneurysm show a tendency to increase [1, 2]. Most cases are asymptomatic, and are often discovered in abdominal ultrasonography and CT accidentally. On the other hand, abdominal

pain and low back pain are sometimes produced with aneurysmal expansion. Threatened aneurysmal rupture or an explosion are included in these existence symptoms case. Because the mortality among ruptured aneurysm cases is very high at 75-90%, it is important that the abdominal aortic aneurysm is not overlooked in patients with abdominal pain and low back pain [3]. We report a case of threatened rupture of abdominal aortic aneurysm that occurred with intractable left low back pain.

Case Report

The patient was a 55 year-old-man. He smoked 20 cigarettes every day. Because lower left melagra developed at the beginning of October, 2010, he consulted our hospital on October 14. Cauda equina syndrome due to lumbar spinal canal stenosis was diagnosed. He received symptomatic treatment including NSAIDs, but the sharp pain was not relieved. Because the left low back pain developed from 3:30 on the afternoon of December 8, he was urgently admitted to our hospital at 1:00 a.m. on December 9. Blood pressure was 118/76mmHg, pulse rate was 74 a minute, and the temperature was 36.8 degrees. He appeared to be in a state of agony and had to crouch down on a bed. The abdomen was tender in both abdominal regions. There was no muscle weakness, and the left knee phenomenon attenuated the deep tendon reflexes neurologically. Both soles had dysesthesia, but objective sensory disturbance was absent. There was a Valleix

pressure point in the left infrapiriform foramen. Lasègue's sign was positive with the left leg. Bladder / rectal disorder was absent. Laboratory data included WBC 4,400/ μ l, Hb 14.4 g/dl, platelet 159,000 / μ l, CRP 0.1 mg/dl, AST 32IU/l, ALT 35IU/l. Gamma GTP was increased to 280IU/l. Left sciatica was doubted at the point of hospitalization, and 25 mg of dibrack feh Nam sodium was given. he Diclofenac Sodium Preparation was effective for sharp pain. A lumbar vertebrae MRI was performed on December 9. The T2-weighted image showed space-occupying lesions of diameter 2 cm on the aorta abdominalis on the back of the 3rd to 4th segments of the lumbar vertebrae with a high signal border and high to low signal parenthyma (Figure 1a). A saccular abdominal aortic aneurysm was detected in an abdominal contrasting CT (Figure 1b). The patient was transferred to a special hospital, and a diagnosis of threatened rupture of an abdominal aortic aneurysm was made. He received endovascular treatment with a stent graft.



Figure 1. a) T2-weighted image sagittal section. With the T2-weighted image, there were space-occupying lesions of diameter 2 cm on the aorta abdominalis on the back of the 3rd to 4th segments of the lumbar vertebrae with a high signal border and high to low signal parenthyma. Also, lower lumbar vertebrae showed intervertebral disc herniation.

b) Abdomen contrasting CT. Saccular abdominal aortic aneurysm was detected in abdominal contrasting CT.

Discussion

Although the weakness of an artery wall causing the abdominal aortic aneurysm can be caused by an injury, inherited disease, infection, or inflammation, it is usually associated with atherosclerosis. There was calcification of the aorta abdominalis in the abdominal CT. There was no history of injury, nor any family history, infection, or inflammatory reactions. Therefore, it is inferred that atherosclerosis was the cause of the aneurysm in the present case. Abdominal aortic aneurysms are common in 65 to 75-year-old male elderly people with a history of cigarette smoking. Guidelines of the U.S Preventive Task force recommend that abdominal ultrasonography is performed for screening of abdominal aortic aneurysm in these people [4]. The annual aneurysmal rate of rupture is associated with aneurysmal size. The rate of rupture with aneurysms less than 5cm in aneurysmal diameter is less than 2%. The rate at 7cm or more diameter increases to more than 20% [5]. The sharp pain resulting from abdominal aortic aneurysm is non-specific.

The symptoms may pass as chronic pain for several years [6, 7]. The pain may appear in the inguinal region, the scrotum, and the buttocks including, but not limited to the abdomen and hips. Abdominal and low back pain, hypotension, and an abdominal pulsatile mass are three cardinal symptoms of an abdominal aortic aneurysm explosion. In the case of threatened rupture or rupture with a little bleeding, diagnosis becomes difficult. It is reported that the misdiagnosis rate of the first examiner in the aorta abdominalis explosion case amounts to 60% [8]. The abdominal aortic aneurysm occurs with a variety of symptoms, and it is not rare for it to occur only after localized sharp pain [6-8]. Sharp pain developed for the disorder in the part in unison with sciatica. There was a history of treatment of lumbar spinal canal stenosis. A nerve root symptom of the left leg was actually present on admission. Perhaps

the abdominal aneurysm pressed on the nerve root. For the diagnosis of the patients who assume low back pain as the main complaint, abdominal aortic aneurysm should be taken into consideration.

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