# Unusual presentation of ruptured aortic aneurysm

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**ABSTRACT:**

**The course of a ruptured aortic aneurysm is sometimes biphasic with an initial period of circulatory compromise, followed by a stable phase, after which a new period of shock develops. This report describes a patient whose aneurysm ruptured, after which he fell out of his lorry and had a brain injury and injured his neck. Despite this he drove through Europe back home to Sweden, where he was eventually operated upon. Key points are that 1. diagnosis is not always easy, 2. a retroperitoneal rupture may make it possible for the patient to reach hospital alive before irreversible shock, 3. a patient may have multiple injuries or diseases.**

**KEY WORDS: Aortic aneurysm, rupture, injury**

## Introduction

It is generally accepted to operate on patients with abdominal aortic aneurysms more than 5- 5.5 cm in diameter due to the risk of rupture. The risk increases with increasing diameter. The annual rupture rate of an AAA of 5.0 – 5.9 cm in diameter has been considered 10%- 14% (1, 2) whereas an aneurysm with a diameter of 7 cm is considered to harbour a risk of rupture of 40% within five years (3).

The mortality when rupture has occurred is altogether about 85%. Those patients with an intraperitoneal rupture usually die before they reach hospital, whereas the mortality after operation for a ruptured aortic aneurysm varies between 23% and 45% (4). A patient with a palpable, pulsating abdominal mass, abdominal pain and shock is easily diagnosed as having a ruptured aneurysm. However, this triad is not always present, as shown by Rose et al (5) who found abdominal pain and a palpable mass in only 49% and 18%, respectively. In their series 16% of the patients were initially misdiagnosed. Common misdiagnoses for ruptured aortic aneurysms are kidney stones, pancreatitis or myocardial infarction.

It is generally considered that a patient with a ruptured aneurysm should be taken to the operation theatre for treatment as soon as possible. However, for some patients the leak is initially relatively small and confined to the retroperitoneal space. These patients may initially have a period of shock and severe pain, which however, recedes, and the patient is, when arriving in the hospital, in a fairly good shape. There is sometimes a real biphasic development with initial pain and circulatory compromise after which the patient recovers, is circulatory normal and even without pain, after which a more or less sudden deterioration occurs. The length of the free interval is, however, unknown.

This is a report of a patient with a ruptured abdominal aortic aneurysm with an interesting free interval.

## Case report

The patient was a 60 year old lorry driver, severely over- weight but otherwise in good health. During the hot summer month of July he drove his lorry from Sweden to Greece. After he had stopped at the terminal he felt dizzy and had low back pain. He fell out of the driver's cabin and fainted. He was taken to hospital and was observed there overnight. The next day he felt better and was discharged from the hospital. The preliminary diagnosis was heat intolerance, a reasonable assumption as the weather was extremely hot!

He slept in his lorry for two days, during which time he was tired, felt dizzy, had slight low back pain and also felt some numbness in both arms.

He felt deep responsibility towards his employer, and therefore he eventually drove the lorry back through Europe to Sweden again. When at home he felt drowsy, was very tired, had numbness in his arms and also right-sided low back pain. The day after arrival home he suddenly had severe low back and abdominal pain and also pain radiating to the left arm. He was taken to hospital and was circulatory unstable with a blood pressure of about 75 mmHg. He responded only slightly to fluid therapy. An ECG was fairly normal as was a thoracic CT-scan, performed on the suspicion of aortic dissection. No abnormalities were found on the clinical evaluation of the

patient's abdomen, but the fact was that the patient was severely over-weight and the abdomen was huge. A CT-scan of the head, performed due to the drowsiness, showed a parenchymatous contusion in the temporal lobe, and an abdominal CT-scan showed an aortic aneurysm of 5.5 cm in diameter and a large retroperitoneal hematoma! Due to the numbness of the arms a CT-scan of the C-spine was also performed, showing osteochondral reactions in the level of C5- C6, with a tendency to bulge into the spinal canal.

The patient was operated upon and the ruptured aneurysm was replaced with a tube graft. His circulation was initially fairly unstable, and he also had a prolonged period of ventilatory support. The postoperative course was further complicated with prolonged temperature rise, and he developed a gut infection with clostridium bacteria. He also had a lot of problems with anxiety and nightmares.

However, he eventually left the hospital in a good condition about three weeks postoperatively, and after three months more he was back in his lorry, driving again. He had no sequel from either his cerebral contusion or his spinal damage.

## Discussion

It has to be concluded that this patient had a very lucky outcome – not to say anything about the wonder that nothing happened during the long drive on the European high-ways, crowded with people on summer holidays. This patient actually drove all the way with a ruptured aortic aneurysm, a cerebral contusion and a spinal injury!

This case report is an unusual example of the difficulties to find the correct diagnosis when symptoms are diffuse and multiple. It also shows the biphasic course of a ruptured aneurysm, which gives us the possibility to save the patient even after a fairly long time lapse.

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