

# Treatment: Case Study in Cardiovascular Anesthesiology/Surgery

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## Abstract

### SURGERY

The patient was scheduled for ascending aortic aneurysm repair. The patient was induced with high dose fentanyl, midazolam, and relaxed with pavulon. Isoflurane was the inhaled anesthetic of choice. The surgical procedure entailed evaluation of the aortic valve and the ascending portion of aorta.

The following pictures were taken during surgery.

#### Figure 1

Clamping of the ascending aorta prior resection of the ascending aneurysm



#### Figure 2

Ascending aorta clamped



After repair of the ascending aorta the patient developed a severe coagulopathy. Appropriate volume replacement was achieved but preexisting cardiac and renal insufficiency, a poor response to diuretics, and high volume requirements lead to heart failure that was not responsive to maximum inotropic support. An intraaortic balloon pump could not be inserted because of the thoracoabdominal aortic aneurysm. The decision was taken by the surgeon to incorporate biventricular support devices after which the surgery was concluded. The patient was then transferred to the cardiovascular ICU. The patient did not recover and died a few days later.

Preoperative transesophageal echocardiography and preoperative CT scans did not confirm the primary diagnosis of an aortic valve leak but revealed an aneurysm starting at the sinus valsalva of the aortic valve extending to the femoral arteries. Changes in geometry at the level of the aortic and

mitral valve resulted in a secondary mitral insufficiency.  
Preexisting morbidity (cardiac, renal, pulmonary)  
contributed to the high risk involved in the repair of the

ascending aneurysm.

## **References**

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