

Aortic Stent Graft

Further Information

For more information on aortic stent grafts or interventional radiology, please call us at (65) 6731 2107 or contact your doctor.

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RADIOLOGIC CLINIC

Abdominal Aneurysms Can Be Treated Non-Surgically

In the past 30 years, the occurrence of Abdominal Aortic Aneurysms (AAA) has increased threefold.^{3,5} AAA is caused by a weakened area in the main vessel that supplies blood from the heart to the rest of the body. When blood flows through the aorta, the pressure of the blood beats against the weakened wall, which then bulges like a balloon. If the balloon grows large enough, there is a danger that it will burst. Most commonly, aortic aneurysms occur in the portion of the vessel below the renal artery origins. The aneurysm may extend into the vessels supplying the hips and pelvis.

Once an aneurysm reaches 5cm in diameter, it is usually considered necessary to treat to prevent rupture. Below 5cm, the risk of the aneurysm rupturing is lower than the risk of conventional surgery in patients with normal surgical risks. The goal of therapy for aneurysms is to prevent them from rupturing. Once an abdominal aortic aneurysm has ruptured, the chances of survival are low, with 80% to 90% of all ruptured aneurysms resulting in death. These deaths can be avoided if an aneurysm is detected and treated before it ruptures.

AAA affects as many as 8% of people over the age of 60.

Prevalence

- Approximately one in every 250 people over the age of 50 will die of a ruptured AAA.
- AAA affects as many as 8% of people over the age of 60.³
- Males are four times more likely to have AAA than females.⁹
- Those at highest risk are males over the age of 60 who have ever smoked and/or who have a history of atherosclerosis ("hardening of the arteries").
- Those with a family history of AAA are at a higher risk (particularly if the relative with AAA was female).
- 50% of patients with AAA who do not undergo treatment die of a rupture.⁵

About the Procedure

This minimally invasive technique is performed by an interventional radiologist in conjunction with a vascular surgeon, using imaging to guide the catheter and graft inside the patient's artery, rather than making a large incision. For the procedure, an incision is made in the skin at the groin through which a catheter is passed into the femoral artery and directed to the aortic aneurysm. Through this incision, a stent graft which has been compressed into a small diameter, is passed over a guide-wire. The stent graft is advanced to the aneurysm, then opened, creating new walls in the blood vessel through which blood flows.

This is a less invasive method of placing a graft within the aneurysm to re-direct blood flow and stop direct pressure from being exerted on the weak aortic wall. This relatively new method eliminates the need for a large abdominal incision. It also eliminates the need to clamp the aorta during the procedure. Clamping the aorta creates significant stress on the heart, and people with severe heart disease may not be able to tolerate this major surgery. Stent-grafts are most commonly considered for patients at increased surgical risk due to age or other medical conditions.

Aortic stent graft

About Abdominal Aortic Aneurysm

AAA is often called a "silent killer" because there are usually no obvious symptoms of the disease. Three out of four aneurysms show no symptoms at the time they are diagnosed. When symptoms are present, they may include:

- abdominal pain (this may be constant or come and go)
- pain in the lower back that may radiate to the buttocks, groin or legs
- the feeling of a "heart beat" or pulse in the abdomen

ABORTING ANEURYSM

The mortality and morbidity of abdominal aortic aneurysms is very high, occurring especially in elderly males. Conventionally, large open surgeries are performed and are associated with significant risks. Fortunately, there is a minimally invasive technique which results in lower morbidity, faster recovery, and reduced complications. Interventional Radiologists are well trained in administering this procedure.

Know your options. Today you have non-surgical choices and direct access to these specialists.