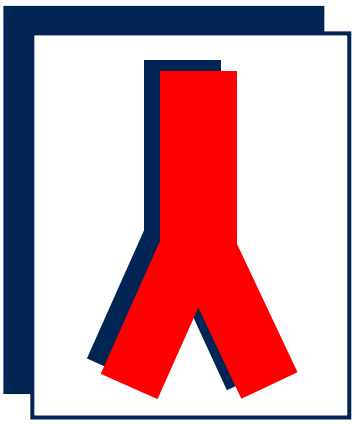
Will Butcher – Vascular Surgery

John Flynn Hospital and Tweed Hospital
P: 07 5598 0288 F: 07 5598 0299
wbutcher@onthenet.com.au



General Practitioner Information: Abdominal Aortic Aneurysms

An Abdominal Aortic Aneurysm (AAA) is a common problem. Because of the risk of rupture, this is a condition that requires careful attention. Important risk factors include smoking, other types of arterial disease and family history.

SMALL ANEURYSMS

Traditionally surgical treatment is offered at a diameter of 55mm. Smaller AAA usually carry a lower risk than larger AAA. At 55mm the risk of surgery is justified by the increased risk of the AAA. If a small aneurysm is found it should be kept under regular surveillance to monitor growth. When it approaches 55m the patient should be referred for specialist workup. Alternatively small aneurysms may also be referred for the vascular surgeon to monitor. Ultrasound scanning is all that is required to track the aneurysm, more invasive testing adds a small amount of risk and adds no value over ultrasound. The AAA should be scanned annually until it is 5cm and then 6 monthly. AAA less than 30mm can be scanned less frequently if preliminary scans are stable.

Is there a case for surgery in AAA < 55mm?

Very occasionally a small AAA will be painful and this may cause a surgeon to intervene earlier. We do not really know the importance of pain in a AAA but it is accepted to be a high risk sign. Such patients should be referred urgently.

There has been a tendency to offer surgery to women at smaller sizes on the basis that the aneurysm is relatively larger in a smaller individual. Unfortunately women also carry a higher risk with surgery and therefore I do not feel that this is justified under normal circumstances.

If a patient has a strong family history of rupture especially documented rupture at small size this should prompt consideration of early surgery.

In some patients the anxiety created by the AAA may cause us to consider pre-emptive surgery. My view is that this is not the right thing to do, but each case should be managed on its own merits.

Conservative Care for AAA

Medication
All patients with AAA should be offered Aspirin (or Clopidogrel if contra-indicated). Cholesterol management with a Statin is also accepted to reduce the risk of coronary and cerebrovascular events. There is evidence that either of these medications started even a few days prior to surgery will reduce the overall risk.

Nicotine
This is often difficult, but there is good evidence that smoking cessation has long term health benefits and stopping reduces future risk in many areas. Recovery from AAA surgery and the long term success of the surgery is improved in those who stop.

Lifestyle
Patients facing major surgery can improve the outcome by an exercise program leading up to the surgery, and weight loss also helps recovery. Patients who have small AAA should consider that they are likely to require surgery in time, and by preparing themselves they can improve their outcome.

LARGE ANEURYSMS

Patients with AAA larger than 50 mm should generally be referred for surgical planning, once the AAA has reached 55 mm surgery should be planned relatively promptly. All Australian Licensing authorities forbid driving if the AAA is larger than 55 mm and this often will focus the patient's mind on the problem. AAA larger than 60mm should be referred for urgent repair.

Further imaging
Most surgeons will not proceed with a repair without some cross sectional imaging, the most popular is a CT Angiogram. This allows planning and evaluation for both open and endovascular repair. In general

these tests should be requested by the surgeon and should not delay referral.

Endovascular aneurysm repair (EVAR)
This utilises an assembly of covered stents placed via the femoral artery into the AAA to effectively exclude the AAA. This type of repair carries the distinct advantage of lower operative risk and modern equipment makes this a very safe and robust repair. The downsides of this repair are that long term surveillance is required which means that the patient is never realy free of concern about the AAA. For patients who live out of town this can be burdensome. Also, we know that up to 20% of these repairs will require further intervention on time, usually endovascular intervention. The other problem with EVAR is that not all AAA are suitable for this type of repair. Approximately a third of patients are not suitable for a standard EVAR. Some of these will be treatable by a more complex fenestrated repair which involves stenting the renal and mesenteric vessels. This increases the risk of the repair to the level of open repair.

Open Repair
This is a traditional operation for AAA. It involves a large incision in the abdomen and replacement of the AAA with a graft. The main problems with this repair are the higher perioperative risk of both death and major complication than endovascular repair. However, there is no need for long term intensive surveillance and the overwhelming likelihood is that after repair, there will be no further problems. Unlike EVAR just about all AAA are anatomically suitable for open repair, although the closer the aneurysm is to the renal arteries the higher the risk.

Conservative Care
In some patients, their overall fitness makes repair inappropriate. This needs to be managed with sensitivity and care. The overall risk of rupture of modest AAA is relatively low compared to surgical repair, these patients should be counselled against repair. Also patient with other medical conditions likely to cause their death within a few years should be considered to be poor candidates for repair. It can be really hard to decide how to proceed in an elderly patient with a very large AAA where their survival is not threatened by anything else but in whom the AAA is clearly likely to cause their death in time. My experience is that many of these patients will work out for themselves the best way to proceed given time and patience.

Rupture
Symptoms of a ruptured AAA include:

- Collapse
- Shock
- Abdominal or back pain
- Pallor
- Loss of consciousness

Patients that present to the GP with symptoms of rupture should be sent to hospital immediately if repair is not thought to be hopeless. I suggest dialling ooo! At that point getting hold of a vascular surgeon through the nearest hospital will help to direct the ambulance to a hospital where a vascular surgeon is likely to be available urgently. Attempts at resuscitation in the GP Surgery are likely to be fruitless and urgent transfer is the priority.