

2. Open surgical repair

Performed in patients not suitable for endovascular repair. Open surgery starts with the exposure of the dilated portion of the aorta via an incision in the abdomen or chest, followed by the insertion of a synthetic graft (tube) to replace the diseased aorta. The graft is sewn in by hand to the non-diseased portions of the aorta and, finally, the aneurysmal sac is closed around the graft.

Recent advancement in terms of minimal invasive surgery and robotic surgery is also available at selected centers in the country.

3. Hybrid approach

(Open + Endovascular combination) – This approach is used to treat complex aortic aneurysms.

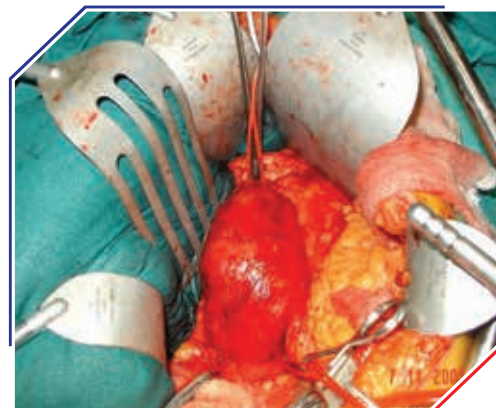


Figure 3: Aortic aneurysm surgical repair

SUMMARY:

Endovascular aortic repair is emerging as a standard of care for both simple and complex aneurysms.

Vascular Expert advice should be taken as soon as there is a suspicion of aortic aneurysm.

Diagnostic evaluation of aortic disorders has improved significantly in the last decade across India, allowing earlier diagnosis and therapeutic intervention.

Get treated before it ruptures....



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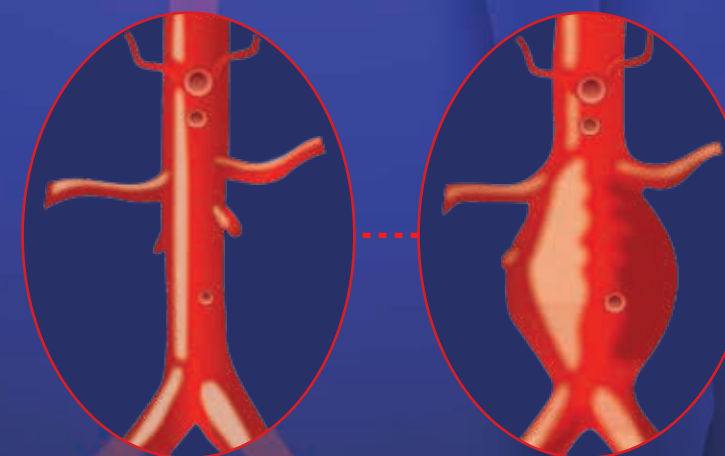
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AORTIC ANEURYSM DON'T LET THE BALLOON BURST!



FOR PATIENT INFORMATION /
EDUCATIONAL PURPOSES

AORTIC ANEURYSM



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INTRODUCTION:

The aorta is the largest artery in the body, extending from the heart through the chest and the abdomen. Aortic diseases, to a great extent, affect the elderly and are more common as the age progresses. They account for a significant cardiovascular morbidity and mortality worldwide.

- Aortic aneurysm is a disease that results in a balloon-like dilatation of the aorta (main blood vessel supplying blood to entire body), and it keeps on expanding over time.
- Aortic aneurysm and aortic dissection are serious health problems. Rupture of aortic aneurysm is one of the leading causes of death around the world, and 50% of the patients die even before reaching the hospital.

TYPES OF AORTIC ANEURYSM

- Abdominal Aortic Aneurysm (AAA)- Involving the part of aorta in the abdominal cavity
- Thoracic Aortic Aneurysm (TAA)- Involving the part of aorta in the chest
- Thoraco-Abdominal Aortic Aneurysm (TAAA)- Involving parts of aorta in the chest as well as abdomen

WHO ARE AT A RISK OF HAVING AORTIC ANEURYSM?

Risk Factors:

- Old age (>60 years)
- Tobacco consumption—smoking or chewing (Any age group)
- Diabetes mellitus
- High blood pressure
- High blood cholesterol levels, obesity

WHAT ARE THE SIGNS AND SYMPTOMS OF AORTIC ANEURYSM?

- Sudden, severe abdominal pain
- Severe back pain
- Feeling of swelling/heaviness in stomach
- Decreased hunger sensation/appetite

The diagnosis may be confused with renal stone, gastritis, hernia or lumbar spine disease.

HOW IS THE DIAGNOSIS CONFIRMED?

Consult a qualified vascular-endovascular surgeon immediately.

Investigations needed include abdominal ultrasonography/CT scan (as advised by the vascular surgeon)

WHAT HAPPENS IF THE PATIENT DOESN'T TAKE TIMELY TREATMENT?

WHAT HAPPENS IF THE ANEURYSM GETS RUPTURED BEFORE TREATMENT?

If neglected, an aortic aneurysm can get ruptured in a process similar to an expanding balloon, leading to on-the-spot death of the patient.

The patient can even die before reaching the hospital.



Figure 1: Aneurysm CT scan

TREATMENT:

Medical treatment: Patients with an aneurysm smaller than 5.5 cm in men and smaller than 5 cm in women are usually treated by medications and 6-monthly serial evaluation with CT scan. If the aneurysm is seen to be increasing in size, the patient is advised to undergo therapeutic intervention.

Who needs urgent intervention?

- Aneurysm size larger than 5.5 cm in men and larger than 5 cm in women.
- Expanding aneurysm on serial CT scans
- Ruptured/impeding rupture of aneurysm

LATEST TREATMENT OPTIONS:

1. Endovascular Aortic Repair (EVAR/TEVAR) – now considered to be the standard of care.

Procedure is performed at a dedicated vascular cath lab. It involves placement of an endovascular stent-graft through small incisions at the top of leg into the aorta. This graft covers the abnormal portion of aorta and prevents blood flow into the aneurysm. Consequently, the aneurysm gets closed and shrinks over a period of time.

As compared to open surgery, EVAR/TEVAR has a lower risk of complications and death in the short-term along with the advantage of a shorter hospital stay (3–4 days).

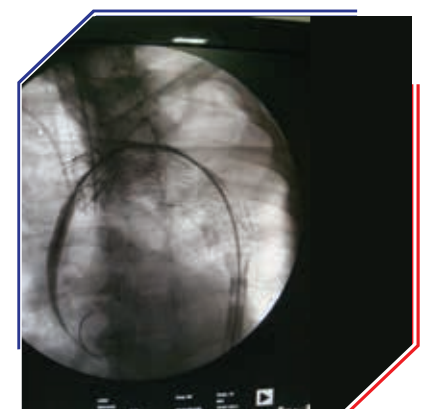


Figure 2: Aortic aneurysm-covered stent