Abdominal Aortic Aneurysm: Interventional Planning and Follow-up

An abdominal aortic aneurysm (https://www.radiologyinfo.org/en/info/abdoaneurysm) is a balloon-like enlargement of the aorta, the largest artery in the abdomen and pelvis. The enlargement is often related to atherosclerosis (buildup of waxy plaque on the inside of blood vessels), which can cause the walls of the aorta to bulge out. Typically, treatment is necessary if the aneurysm diameter is bigger than 5.5 cm or if the diameter grows by 1 cm or more in a year.

There are two possible treatment options. In endovascular aneurysm repair (EVAR), a stent is inserted into the vessel using a catheter. The other option is open surgery to replace the damaged area of the aorta through an incision in the abdomen. The best option depends on the person's anatomy and location of the aneurysm. Planning for treatment is done with imaging. Most commonly, computed tomographic angiogram (CTA) (https://www.radiologyinfo.org/en/info/angioct) or magnetic resonance angiogram (MRA) (https://www.radiologyinfo.org/en/info/angiomr) , in which contrast material is injected intravenously to highlight blood vessels and surrounding organs, is used. Other imaging tests may be appropriate to use for planning. These include CT with or without contrast and MRA without contrast. Aortography, an imaging procedure using x-rays with contrast inserted into an artery to view the aorta and smaller arteries, may also be appropriate.

After EVAR or open surgery, follow-up imaging examinations are needed to watch for any complications. Both CTA and MRA are usually appropriate. Other imaging tests may be appropriate, including CT with and without contrast, CT and MRA without contrast, x-ray (https://www.radiologyinfo.org/en/info/abdominrad) ,
ultrasound (https://www.radiologyinfo.org/en/info/abdominus) , and aortography.

For more information, see the Abdominal Aortic Aneurysm (AAA) page (https://www.radiologyinfo.org/en/info/abdoaneurysm) .

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