

Aortic dissection

The aorta is a large artery that takes blood from the heart to the body's tissues and organs. The aorta wall is made up of three layers. The intima is the inner wall. The middle layer is called media and the outer one is called adventicia. The word dissection refers to a process in which the inner layer of the aorta wall tears or opens allowing the blood to flow to the media. When this occurs, the aorta wall where the rupture is caused weakens and often makes the aorta dilate or swell where the rupture was caused. When blood flows toward the area of the rupture, it gets even bigger. This tear generally goes in the opposite direction of the heart. It is more common for it to occur where there is high pressure on the artery wall as a result of the flow of blood. The part where the blood flow is greatest is the ascendant aorta, which is the part of the aorta that goes out of the heart. It is not known what the exact cause of aortic dissection is, but some causes are atherosclerosis and hypertension. A traumatic injury can also cause aortic dissection, especially a sharp, quick blow to the chest. Other risk factors are infection, congenital weakness of the aorta, collagen disorders, such as Marfan syndrome, or abdominal aortic aneurism.

Aortic dissection is more common in men over 40 years old, but can affect anyone.

Prevention:

The right treatment and control of atherosclerosis and hypertension can lower the risk, although many cases cannot be prevented. Take precautions to reduce the risk of injuring yourself.

Symptoms

The symptoms of aortic dissection can occur suddenly. The most common symptom is chest pain, which is often strong and is described as sharp, cutting or tearing. Frequently, it hurts in the middle of the upper part of the chest or the upper part of the back. The pain often moves as the dissection progresses. The symptoms can resemble a heart attack. Patients may have nausea, feel extremely anxious, and sweaty. They can also feel dizzy, faint or short of breath. If the dissection blocks the flow of blood to other blood vessels, you may have an abnormal feeling in the arms and legs as a result of the reduced blood flow.

Signs and examinations:

Patients with aortic dissection generally appear to be seriously ill. They may be pale and sweaty. When listening with a stethoscope on the chest and abdomen, it is possible that a noise may be heard similar to "blowing up" over the aorta. You could have weak or diminished beats in the arms. Frequently patients' hearts beat fast. Blood pressure may be high, or if you have bled a lot, it can be low. There may also be signs of shock but with normal blood pressure.

A series of tests may be performed to diagnose aortic dissection. These include:

- chest magnetic resonance (MRI)

- chest computerized tomography
- echocardiography
- chest X-ray
- Doppler echography
- electrocardiogram
- complete blood count to evaluate blood loss

Treatment of aortic dissection:

Aortic dissection is a medical emergency. The objective of treatment is to prevent complications. Hospitalization is required. Anti-hypertensive drugs may be prescribed to lower blood pressure. Analgesics may be needed for the pain. Heart medications such as beta blockers, may reduce some symptoms.

Aortic dissection is potentially fatal. The disorder can be cured by surgical repair if done before the aorta tears. Less than half of the patients with aortic rupture survive.

The complications of aortic dissection include:

- bleeding of the aorta
- aortic rupture that causes rapid blood loss, shock and death
- formation of a blood clot where the dissection occurred
- inadequate circulation in other areas besides the place of the dissection
- irreversible kidney failure
- stroke
- myocardial infarction (heart attack)
- cardiac tamponade (blood that leaks in the sac surrounding the heart and compresses the heart, which interrupts the flow of blood to the body)

It is extremely important to get immediate medical care if you have symptoms of aortic dissection.