Brief note on pericardial disease.

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Description

The pericardium is the sac that surrounds your heart. The pericardium helps to keep the heart in place, prevents it from overflowing with blood, protects it from damage from chest infections, and prevents friction with surrounding tissues when the heart is beating. Even if you remove the pericardium, the heart still works. The pericardium is composed of two thin layers. The outer layer of the pericardium is referred as the fibrous pericardium and usually measures less than 2 mm in thickness. The inner portion of the pericardium is a two layered sac called as serous pericardium. Between the two layers of the serous pericardium lies the pericardial cavity which normally contains up to 50 mL of pericardial fluid.

While the pericardium is not critical for life, it serves important functions including maintenance of cardiac position within the chest and as a barrier to infection and inflammation. Rarely, the pericardium is missing at birth or has defects, such as weak spots or holes. These defects can be dangerous because the holes can bulge (hernias) and pinch the heart and large blood vessels.

Causes of pericardial disease

Infections, injury, and the spread of cancer can also cause pericardial disease. The most common illness is pericarditis, which is inflammation of the pericardium. Pericarditis includes the following: Acute inflammation: Begins shortly after the underlying illness. Sub-acute: Inflammation begins weeks to months after the underlying illness. Chronic inflammation: lasts more than 6 months. Other diseases of the pericardium include: Pericardial effusion-Too much water remains in the pericardial cavity, causing the heart to not fill properly with blood. Possible causes of pericardial effusion include: diseases that cause inflammation, like lupus or rheumatoid arthritis, severe underactive thyroid (hypothyroidism), infections, recent heart surgery, cancer that has spread to your pericardium, and kidney failure

Signs and symptoms

Acute pericarditis typically presents with acute onset severe, sharp retrosternal chest pain, often radiating to the neck, shoulders, or back. Positional changes are characteristic with worsening of the pain in the supine position and with inspiration; and improvement with sitting upright and leaning forward. Classically, a scratchy, grating, high pitched friction rub (which has been likened to the squeak of leather of a new saddle) is heard. This is felt to be caused by fibrous deposits in the inflamed pericardial space the timing of which can be mono, bi, or tri-phasic (corresponding to atrial systole, ventricular systole, and early ventricular diastole, respectively). It is best heard during inspiration at the left lower sternal border, with the patient leaning forward. Friction can be eliminated by the generation of exudates and the threat of cardiac tamponade.

Treatment

Most cases of acute pericarditis are simple, self-limited and can be treated on the basis of outpatient. Advanced diagnostic imaging, hospitalization, or both indications include major effusion, hemodynamic instability, clinical suspicion of severe pain or other symptoms, suspicion of serious underlying illness, clinical instability or other symptoms of imminent exacerbations. Other features suggesting a more complex course considering fever above 38 ° C, sub-acute onset, no response to anti-inflammatory therapy for at least 1 week, myo-pericarditis, immune suppression, trauma, or Simultaneous treatment with oral anticoagulants therapy.

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