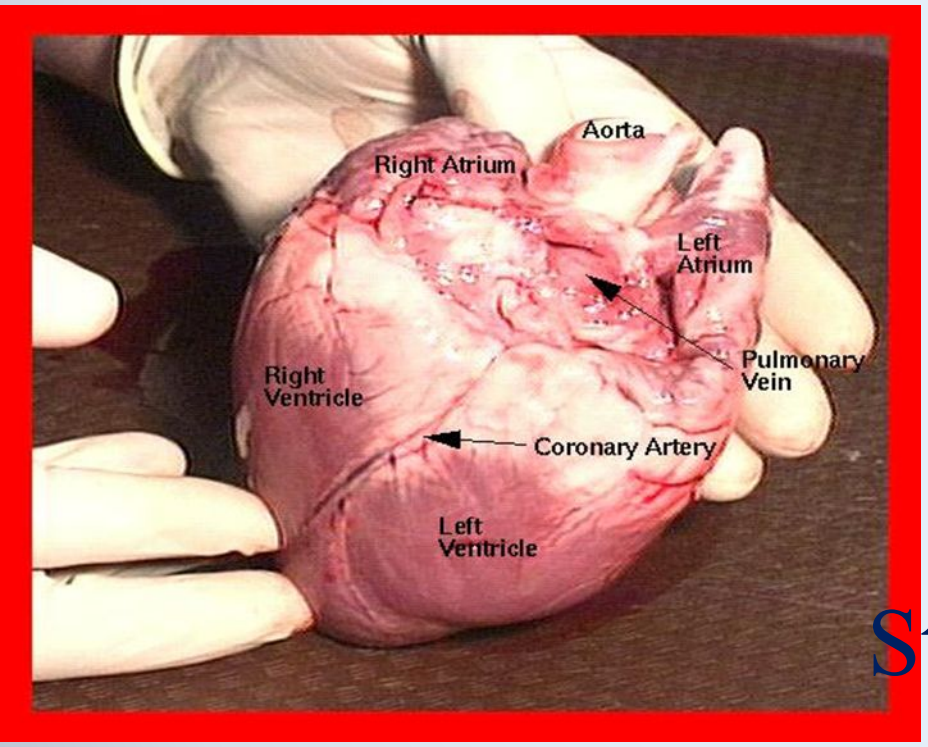
С.Ж. АСФЕНДИЯРОВ АТЫНДАҒЫ

ҚАЗАҚ ҰЛТТЫҚ МЕДИЦИНА УНИВЕРСИТЕТІ



Rheumatic endocardites

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Plan

- **Endocarditis**
- ***Infective endocarditis***
- ***Non-infective endocarditis***
  - ***Nonbacterial thrombotic endocarditis***
  - ***Libman-Sacks endocarditis***
- ***Diagnostics***
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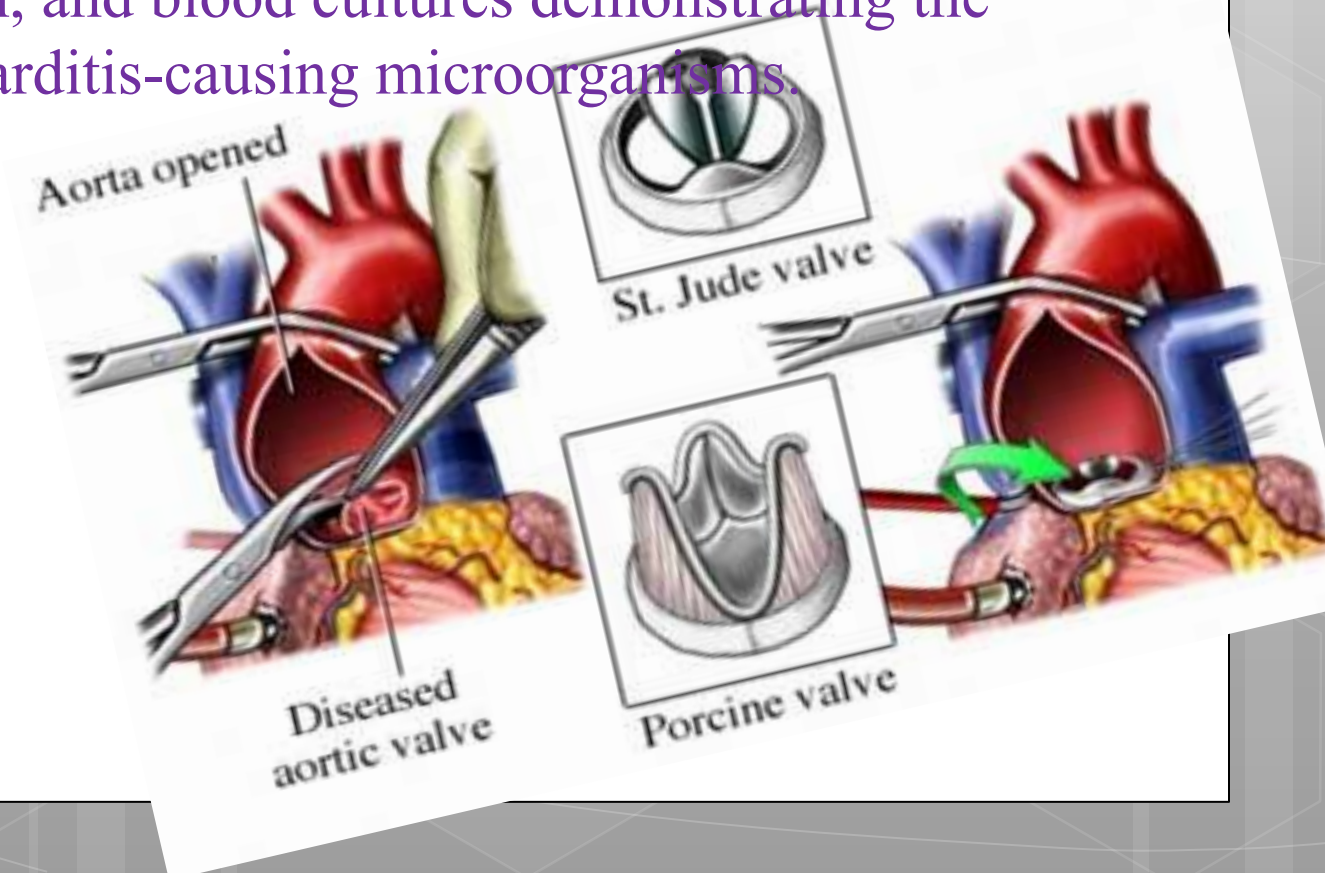
Endocarditis is an inflammation of the inner layer of the heart, the endocardium. It usually involves the heart valves (native or prosthetic valves). Other structures that may be involved include the interventricular septum, the chordae tendineae, the mural endocardium, or even the surfaces of intracardiac devices. Endocarditis is characterized by a prototypic lesion, the *vegetation*, which is a mass of platelets, fibrin, microcolonies of microorganisms, and scant inflammatory cells

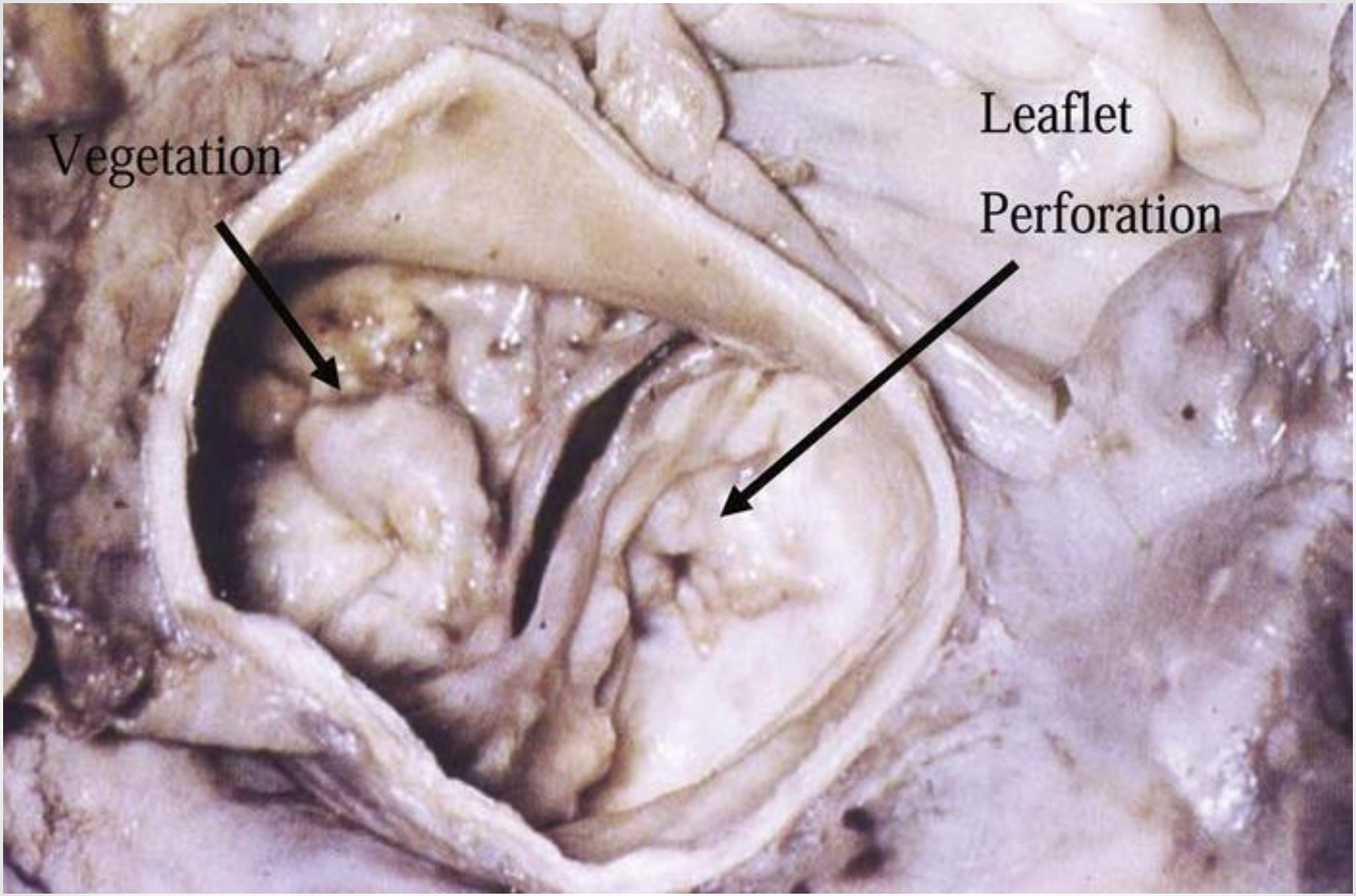
There are multiple ways to classify endocarditis. The simplest classification is based on etiology: either *infective* or *non-infective*, depending on whether a microorganism is the source of the inflammation or not. Regardless, the diagnosis of endocarditis is based on clinical features, investigations such as an echocardiogram, and blood cultures demonstrating the presence of endocarditis-causing microorganisms.



Infective endocarditis

Since the valves of the heart do not receive any dedicated blood supply, defensive immune mechanisms (such as white blood cells) cannot directly reach the valves via the bloodstream. If an organism (such as bacteria) attaches to a valve surface and forms a vegetation, the host immune response is blunted. The lack of blood supply to the valves also has implications on treatment, since drugs also have difficulty reaching the infected valve.

Normally, blood flows smoothly past these valves. If they have been damaged (from rheumatic fever, for example) the risk of bacteria attachment is increased


Vegetation
Leaflet
Perforation

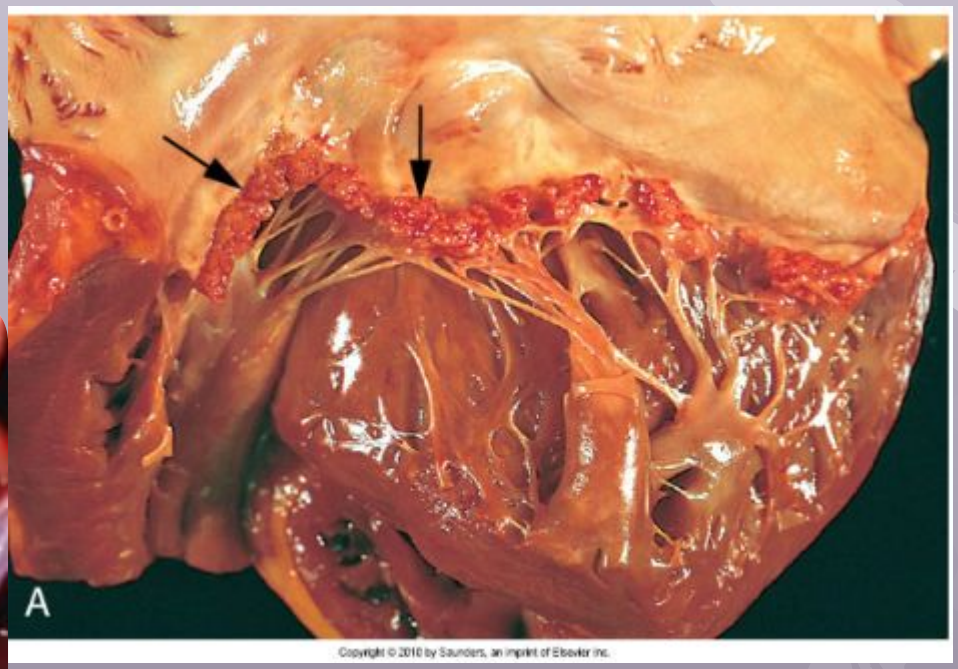
Non-infective endocarditis

Nonbacterial thrombotic endocarditis

Libman-Sacks endocarditis

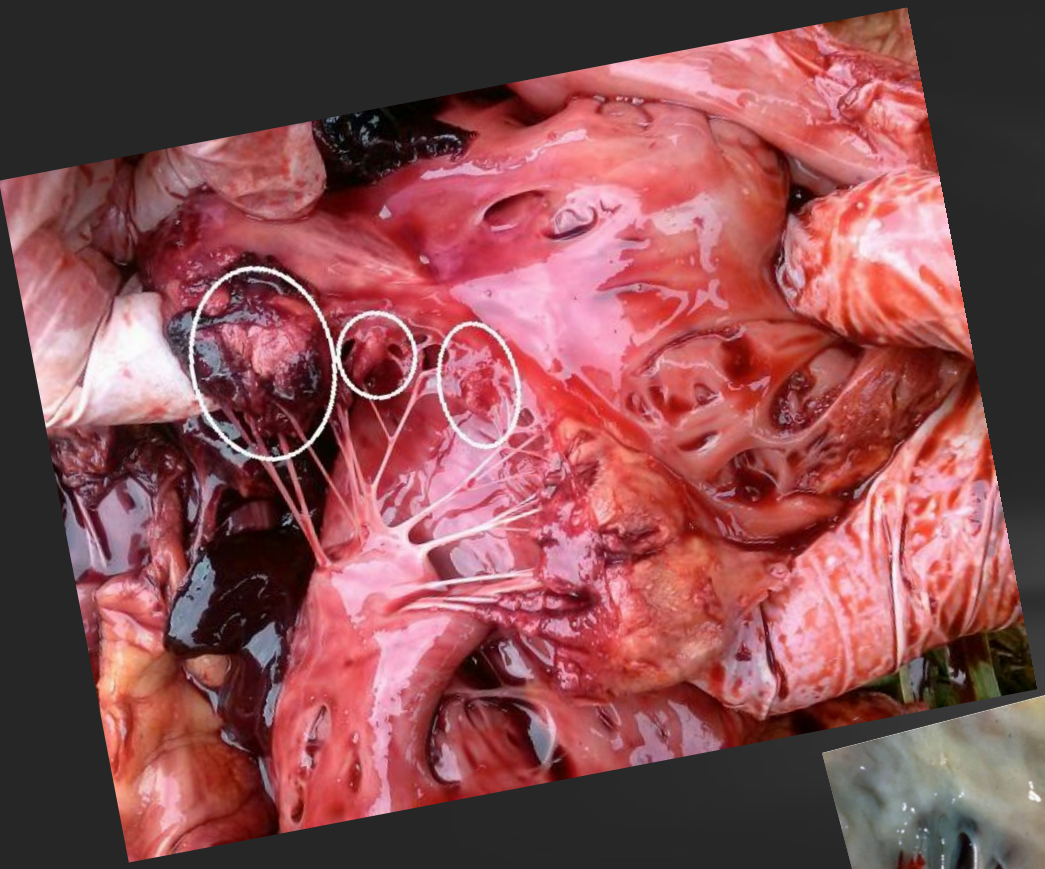
Nonbacterial thrombotic endocarditis

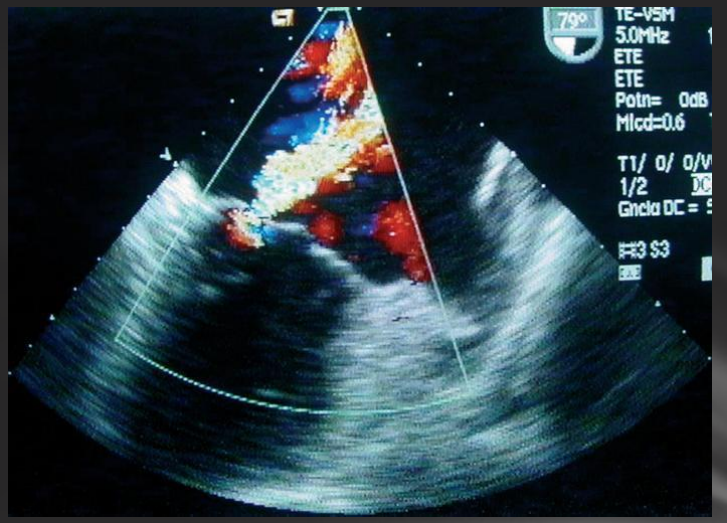
Nonbacterial thrombotic endocarditis (NBTE), also called ***marantic endocarditis*** *is most commonly found on previously undamaged valves. As opposed to infective endocarditis, the vegetations in NBTE are small, sterile, and tend to aggregate along the edges of the valve or the cusps. Also unlike infective endocarditis, NBTE does not cause an inflammation response from the body. NBTE usually occurs during a hypercoagulable state such as system wide bacterial infection, or pregnancy, though it is also sometimes seen in patients with venous catheters. NBTE may also occur in patients with cancers, particularly mucinous adenocarcinoma*



Libman-Sacks endocarditis

Another form of sterile endocarditis, is termed Libman-Sacks endocarditis; this form occurs more often in patients with lupus erythematosus and is thought to be due to the deposition of immune complexes. Also unlike NBTE, Libman-Sacks endocarditis does not seem to have a preferred location of deposition and may form on the undersurfaces of the valves or even on the endocardium.

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DIAGNOSTICS

Examination of suspected infective endocarditis includes a detailed examination of the patient, and especially careful cardiac auscultation, various blood tests, ECG, cardiac ultrasound (echocardiography). The decisive role played by echocardiography in the diagnosis (through the anterior chest wall or transesophageal), with which you can reliably establish the presence of microbial vegetation, the degree of valvular and violations of the pumping function of the heart.

Thank you for your attention!!!

References

- *Copyright © 2004 - 2014 Atlas of Pathology*
- *www.wikipedia.en*
- *emedicine.medscape.com*