



***KAZAKH NATIONAL MEDICAL UNIVERSITY OF  
THE NAME OF S.D.ASFENDIYAROV***

**Theme: *Rheumatic Endocarditis.***

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***Faculty: General medicine***

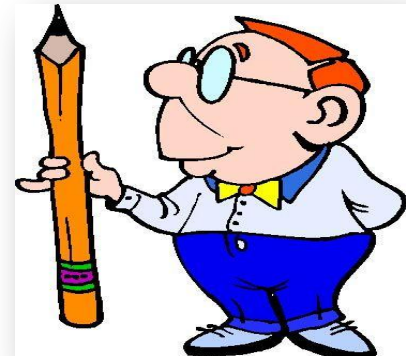
***Group: 013-01***

***Course: 2***



# PLAN:

- ◆ *Introduction.*
- ◆ *Basic part:*
  - *Inflammation*
  - *Infective endocarditis*
  - *What is endocarditis*
  - *What are symptoms of endocarditis*
- ◆ *Conclusion.*





# *Endocarditis is an inflammation*

*Endocarditis is an inflammation of the inner layer of the heart, the endocardium. It usually involves the heart valves. Other structures that may be involved include the interventricular septum, the chordae tendineae, the mural endocardium, or even on intracardiac devices. Endocarditis is characterized by a prototypic lesion.*





*There are multiple ways to classify endocarditis.*

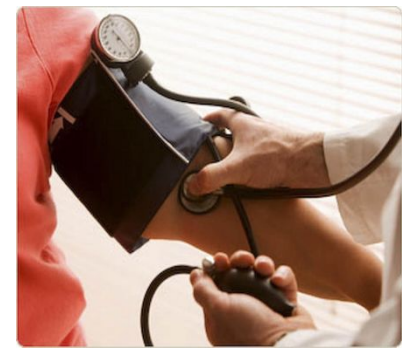


*There are multiple ways to classify endocarditis. The simplest classification is based on etiology: either infective or non-infective, depending on whether a microorganism is the source of the inflammation or not.*



# ***INFECTIVE ENDOCARDITIS***

*Since the valves of the heart do not receive any dedicated blood supply, defensive immune mechanisms cannot directly reach the valves via the bloodstream.*





*The endocarditis seen in acute rheumatic fever may set off a more chronic process that can eventually produce heart valve damage. In other words, it can produce rheumatic heart disease.*



# *WHAT IS ENDOCARDITIS*



*Infective endocarditis is an infection of the endocardial surface of the heart, which may include one or more heart valves, the walls, or a septal defect.*

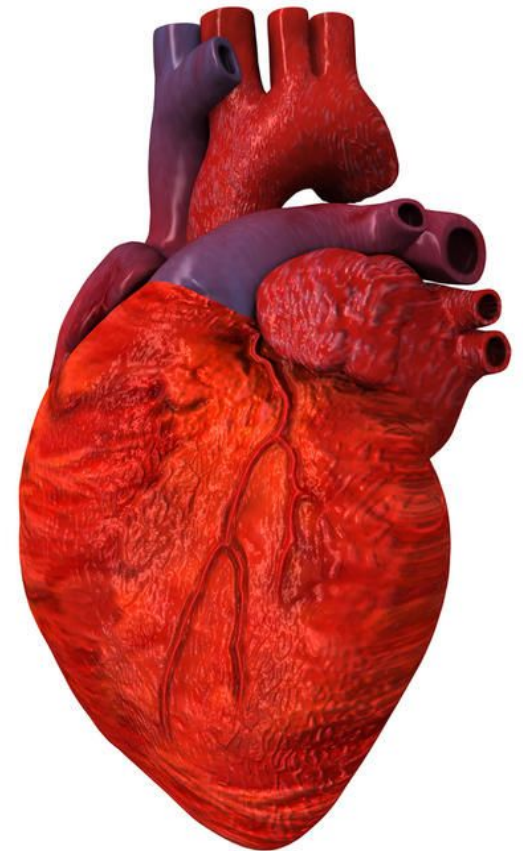




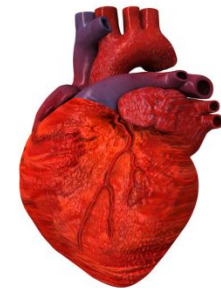
# *WHAT ARE SYMPTOMS OF ENDOCARDITIS*



*Fever, skin  
hemorrhages  
especially under  
the nails, blood in  
urine and blood in  
sputum.*







*Fever, weakness, shortness of breath, loss of appetite, weight loss. Signs include anemia, new or changing heart murmur, peripheral emboli and hematuria.*





## ***ENDOCARDITIS DEVELOPS IN THE ENDOCARDIUM***



*Endocarditis develops in the endocardium, the inner tissue of the heart. It starts if this tissue has been damaged, injured, or infected. Much as a cut on the skin causes a scab to form, damage to the endocardium can lead to the formation of a blood and tissue clot.*



# ***IN INFECTIVE ENDOCARDITIS***



*In infective endocarditis, the clots are caused by bacterial or fungal infection, inflaming and damaging the heart cells.*



# *ACUTE RHEUMATIC ENDOCARDITIS*



*This heart lesion was an autopsy finding in a girl of 16 years.*

*There is a row of small, firm, grayish vegetations along the contact line of the mitral valve cusps.*





# ENDOCARDITIS, MYOCARDITIS AND PERICARDITIS.



- ◎ *They are the cardinal feature of rheumatic endocarditis.*
- ◎ *But endocarditis is just one component of the **pancarditis** that occurs in acute rheumatic fever, i.e. there are inflammatory changes in all three layers of the heart, **endocarditis, myocarditis and pericarditis***



*In infective endocarditis, the clots are caused by bacterial or fungal infection, inflaming and damaging the heart cells. The infection reaches the heart through blood that's carrying a concentration of bacteria.*



## References:

- Mohindra R, Pannu HS, Mohan B, Kumar N, Dhooria HS, Sehgal A, Avasthi G. Syncope in a middle aged male due to acute rheumatic fever. Indian Heart J. 2004;56(6):668-9.**
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Thank  
You