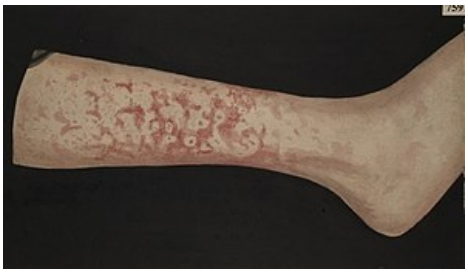
Rheumatic endocarditis

Rheumatic endocarditis is an acute inflammatory disease that occurs 2-4 weeks **after streptococcal tonsillitis or pharyngitis** (after infection of the pharynx or tonsils with β-hemolytic streptococcus group A , rarely group C or G). Rheumatic fever is a systemic disease in which the following can occur:

- joints (migrating arthritis),
- heart (pancarditis),
- CNS (chorea minor)
- skin (erythema marginatum, subcutaneous nodules).


Erythema marginatum

Some parts of the streptococcus bacteria have antigenic potential and thus stimulate cellular and humoral immunity. **Cross-reaction** produces antibodies that can react with cardiomyocytes to form myocarditis, endocardial cells to form endocarditis, and more rarely on neurons to form chorea.

Subcutaneous rheumatic nodules

As far as the endocardium is concerned:

- The **mitral valve** is most often affected (mitral regurgitation, mitral stenosis), l
- Less often the **aortic valve** (aortic regurgitation in combination with aortic stenosis).
- Often in rheumatic heart disease we also see **AV-blockade I. , II. or III. degrees.'**

In rheumatic fever, all three layers of the heart wall can be affected. In this case, we speak of so-called **pancarditis**, which is a combination of concurrent endocarditis, myocarditis and pericarditis.

The involvement of the heart in rheumatic fever is always a very serious condition, which can result in heart failure or death due to severe myocarditis or a hemodynamically severe valve defect.

Clinical symptoms

Clinical signs include

- fever,
- fatigue,
- palpitations
- shortness of breath, or other signs of cardiac insufficiency.

Diagnosis

Diagnosis is based on:

- history (streptococcal tonsillitis, streptococcal pharyngitis, involvement of other organs in rheumatic fever);
- physical examination (valve murmur, pericardial murmur, signs of heart failure);

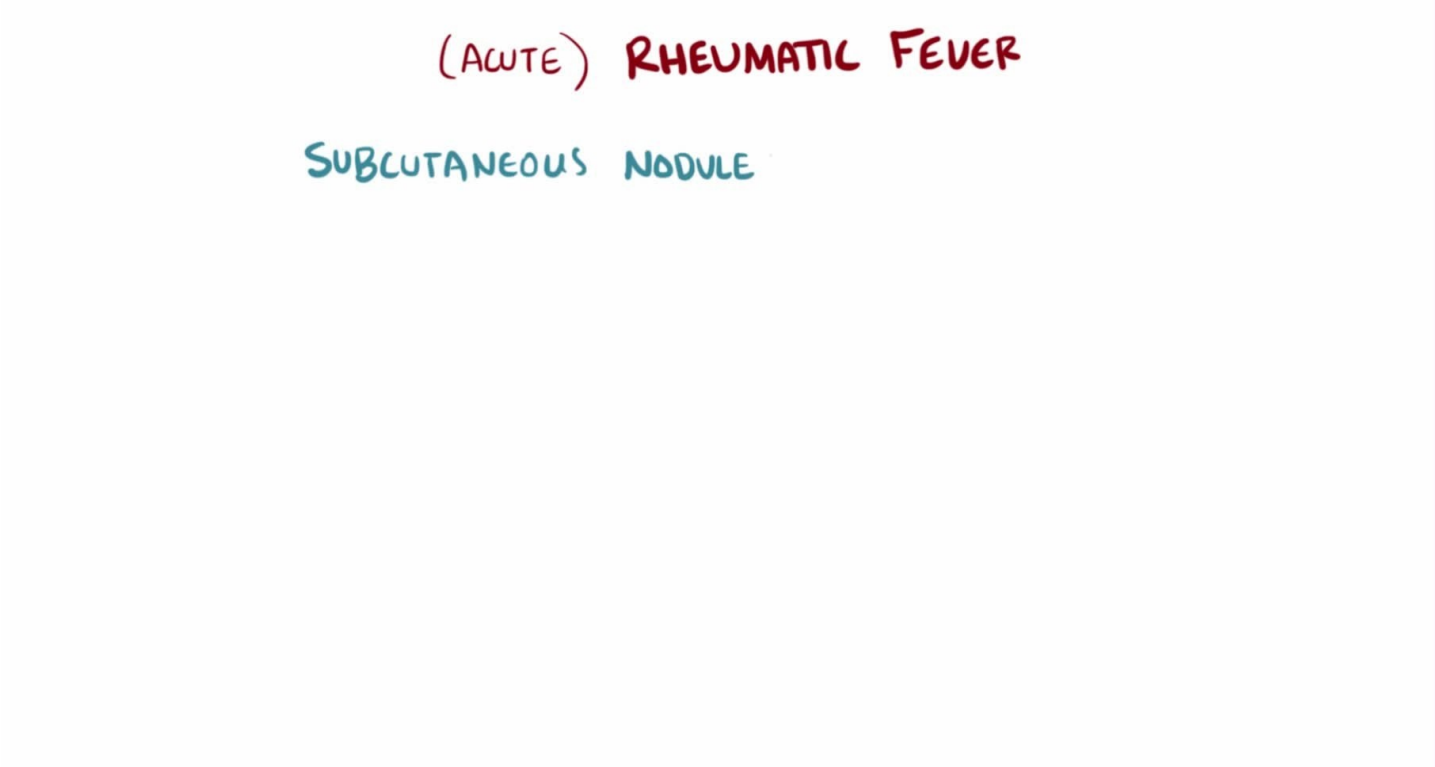
laboratory tests (CRP, FW, leukocytosis, ASLO antibodies);

- ECG (AV block, non-specific ST changes);
- transthoracic or transesophageal echocardiography .

Treatment

- bed rest
- intramuscularly Penicillin G, to which the depot form of penicillin binds
- prednisone
- acetylsalicylic acid

Summary video



Links

Related articles

- **Rod Streptococcus**: Streptococcus pyogenes
- **Streptococcal infection**: Streptococcal infection group A • Scarlet fever • Spálová angína • Erysipelas • Impetigo
- Non-infectious endocarditis • Infectional endocarditis

Related Literature

- ASCHERMANN, Michael, et al. *Cardiology.* 1. edition. Galén, 2004. pp. 1183-1185. ISBN 80-7262-290-0.
- KLENER, Pavel, et al. *internal medicine.* 3. edition. Praha : Galén, 2006. ISBN 80-7262-430-X.

References

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KLENER, Pavel, et al. Internal Medicine. 3rd edition. Prague: Galén, 2006. ISBN 80-7262-430-X .