

# RHEUMATIC FEVER

## PATHOPHYSIOLOGY

Immune reaction that happens 1-5 weeks after a group A Streptococcus pharyngitis (*S. pyogenes*)

### Jones Criteria

- Carditis (40-50%)\*
- Polyarthritits (60-85%)
- Sydenham chorea
- Erythema
- Subcutaneous nodules

### Minor criteria:

- Elevated ESR
- Fever
- Elevated CRP
- Prolonged PR on ECG

### WITH

- Evidence of infection by group A Streptococcus
  - o Positive throat culture
  - o ASO + or elevated titers

\* *Carditis*: tachycardia, MR >> AR, pericarditis, cardiomegaly, signs of heart failure

**Aschoff bodies**: pathognomonic of rheumatic disease

- Nodules located in the myocardium, not on the valves

## TREATMENT

### Secondary prevention

In patients with rheumatic heart disease, especially **mitral stenosis**

Antibiotics used:

- Penicillin G benzathine 1.2 million U IM every 4 weeks
- Penicillin V 200 mg twice a day
- Sulfadiazine 1g daily

### Duration of the prophylaxis

Type	Duration after last attack
Rheumatic fever with carditis and residual heart disease	10 y or until patient 40 y-o
Rheumatic fever with carditis without residual heart disease	10 y or until patient 21 y-o
Rheumatic fever without carditis	5 y or until patient 21 y-o

**Content of this summary from these references:**

- Otto C & Bonow R. Valvular Heart Disease. (2012) In Bonow R. *et al.* Braunwald's Heart Disease, 9<sup>th</sup> edition, pp. 1468-1539. Philadelphia, PA: Elsevier.
- Nishimura R. A. et al. 2014 ACC/AHA guidelines for the management of patients with valvular heart disease. *J Am Coll Cardiol* 2014;63:e57-185.