

Rheumatic fever
ARF - Autoimmune inflammatory process that develops
as a sequelae of streptococcal infection.
(bacterial throat infection)

It can cause painful joints. heart problems

Symptoms - High temp

- Redness, painful, swelled joints -
usually knee, ~~hand~~, wrist or
elbow

- HRT

- Pain in chest

- ~~patches on~~

Rx - Antibiotics
penicillin.

Chronic RHD → Chronic valvular heart disease develops
2/3 cases occur in women MV affected in 90% cases
then aortic valve. In chronic progressive fibrosis occurs

③ Healing stage - Healing is by fibrosis of Aschoff's nodules.

Rheumatic Endocarditis - Generally, the lesions are basically Mac Callum Patches (Patches on the left atrium). It is basically in the region of endocardium of posterior wall of left atrium. The affected area shows oedema, lymphocytes, plasma cells, macrophages & Antischnew cells.

Rheumatic Myocarditis - The myocardium of specially left ventricle is involved & becomes soft. There are small foci of necrosis & they are healed by fibrosis. If it is severe it can cause cardiac failure & death. There is a presence of oedema, lymphocytes, infiltratⁿ b/w the muscle & the presence of Aschoff's bodies.

Rheumatic Pericarditis - This is an imp. cause of pericardial effusion. Generally, there is fibrous carditis & it is often called bread butter appearance.

Extra Cardiac lesions

- ① Polyarthrits - Acute painful inflammatⁿ of synovial membranes of larger joints of the limb.
- ② Subcutaneous nodules - The nodules are located at extensor surfaces of the wrist, elbow, ankle & knees.
- ③ Erythema Marginatum - These are non pleuritic. ^{fade at center} ^{red at edge} ^{during 2 phases}
Non pleuritic rash is a characteristic of rheumatic fever.
- ④ ^{Sydenham's chorea} Chorea Minor - There are unpurposeful & involuntary jerky movements of the trunk & the extremities & this conditⁿ is particularly seen in girls.

Clinical Features

- ① It is commonly found in age b/w 5-15 yrs.
- ② Jones Criteria Major Criteria
Minor Criteria

Coarse cough - Indicated in case of carditis or severe arthritis.
 Prednisolone - 1.0 to 2 mg/kg/day ÷ d doses s/b continued until
 CRP is ≤ 2 and then tapered off.

2° Prevent - If recurrent - long term prophylaxis is penicillin
 s/b given as benzylpenicillin 1.2 million
 or phenoxymethyl penicillin 250mg 12 hourly.

- In Major Criteria - (i) Carditis or oral
 (ii) Polyarthralgia
 (iii) ~~Korea~~ Minor
 (iv) Erythema Marginatum. If allergic to penicillin
 (v) Subcutaneous nodules. - Sulphadiazine or erythromycin

In Minor Criteria - (i) clinical finding \rightarrow ^{Fever} Arthralgia - This is basic
 symptomatic conditⁿ of arthritis

- (ii) lab finding \rightarrow Raised ESR
 \rightarrow Raised C-Reactive Protein.
 (iii) Supportive Evidence of streptococcal infectⁿ / RF.

The presence of any 2 of the major or presence of
 one major & 2 minor criteria for the diagnosis of
 rheumatic fever.

Investigatⁿ

Evidence of systemic illness \rightarrow Leucocytosis, raised ESR, raised CRP
 preceding strep. infectⁿ \rightarrow Throat swab culture
 Antistreptolysin O Ab (ASO) titer
 > 200 U (adults), > 300 (children)

Evidence of Carditis

Chest X-ray - Cardiomegaly, but congestⁿ
 ECG - 1st & rarely 5th heart block. features of
 pericarditis - T wave inversⁿ
 Reductⁿ in QRS vol^u.
 Echo - Cardiac dilatation & valve abnormalities

Rx of Acute Attack

- Single dose of benzyl penicillin 1.2 million U in or oral
 phenoxymethyl penicillin 250mg 6 hourly for 10 days.
- Bed Rest & supportive therapy. If severe - phenoxymethyl penicillin or cephalosporin.
- Aspirin - relieve symptoms of arthritis & a prompt response
 in 24 hrs help to confirm diagnosis. Starting dose 60mg/kg/day
 ÷ d in 6 doses. Aspirin s/b continued until ESR has fallen
 & then gradually tapered.