

Rheumatic Fever

Sept 2014

Epidemiology

Rare <2yrs; 5% <5yrs; most common 5-15yrs; high incidence in Maoris etc
75% resolve in 6/52; 90% resolve in 3/12; without recurrences, 60% valve lesions regress within 10yrs
RF occurs 2-6/52 after strep throat

Cause

Group A beta-haemolytic Strep (pyogenes); following pharyngitis; due to cross reactivity anti-strep abs

Pathology

Affects connective tissue of heart, joints, CNS, SC tissues, skin
Endomyocarditis, valvulitis esp affect MV and AV

Diagnostic criteria (modified Jones)

2 major or 1 major and 2 minor + evidence of recent strep infection

Major:

- J:** Joints (70%): migratory polyarthritis; esp large joints
- O:** (heart shaped "O") Carditis (66%): CCF, pericarditis, pancarditis, murmur, cardiomegaly, gallop
- N:** Nodules: subcutaneous nodules (Aschoff bodies) (1/12 after fever): wrist, elbow, knees
- E:** Erythema marginatum (10%): macular rash on trunk/ limbs
- S:** Sydenham's chorea (St Vitus' dance) = very late

Minor:

- Fever >38
- Arthralgia
- PMH of RF
- ESR or CRP >30
- Prolonged PR
- Rising titre of anti-strep abs

Investigations

Swabs: throat (usually negative by time of onset)

Bloods: rapid strep test (95% spec); ASOT (anti-streptolysin O titre) (sens >90%; usually >250; rising titre important; incr in 1st 4/52, plateau at 3-6/52, normalise over 6-12/12); anti-DNAse B titres; ESR, CRP; anaemia; blood cultures if febrile

ECG: prolonged PR; pericarditis

CXR: cardiomegaly, CCF

Echo: if features of carditis

Management

Abx: penicillin 10mg/kg BD for 10/7; erythromycin/roxi if penicillin allergy

For carditis: bed rest; treat CCF (diuretics, fluid restriction; ACEi if severe); dig for AF; pred 1-2mg/kg/day

For arthritis: NSAIDs, high dose aspirin (75-100mg/kg/day) for 1/52 then taper

For chorea: valproate, haloperidol

No benefit: aspirin, steroids

Prevention

Primary: Risk from strep throat decr by 70% with Abs

Secondary: penicillin (250mg BD PO or 900mg IM penicillin Q1monthly) for 5yrs or until 18

