

Eosinophilia

What are the causes of Eosinophilia? 0:36

- Diverse causes
- Most causes are reactive – secondary etiologies rather than primary haematological disorder which are fairly rare
- Highlighted disorders: Autoimmune disorders (Churg Strauss, PAN, SLE), Drugs (DRESS), allergy/atopy, helminthic infections

When is Eosinophilia significant? 2:40

- Level of Eosinophilia – Most secondary eosinophilias are milder at 0.5-1.5, when levels are extremely raised to consider more strongly primary haematological disorders
- End organ damage: Cardiac, neurological, VTE
- However, level of eosinophilia may not correlate with end organ damage
- To consider early haematology review in such contexts as emergent treatment is needed when end organ damage is present
- Eosinophil count may fluctuate based on treatment initiated (e.g. steroid treatment)

What to ask for in history? 5:48

- End organ manifestation and manifestations of reactive causes can overlap (e.g. SLE can manifest with what appears to be end organ involvement)
- Take a step back and attempt to fit clinical picture into syndromic diagnoses
- Thorough systematic review
- Drug history – May need to ask further into the past as reactions like DRESS
- Travel history – High risk areas for helminthic infections; history for parasitic exposure can be remote and these infections can get reactivated in elderly patients when they are immunocompromised

What investigations to perform? 8:38

- For mild/asymptomatic eosinophilia, attributable causes like atopy can normally account for the eosinophilia; sometimes a watch and follow up approach can be considered for mild eosinophilias
- Basic investigations
 - FBC: Looking at other differential counts
 - PBF: Looking for atypical cells/blasts, mast cells
 - Baseline renal and hepatic panels
 - Subsequently targeted based on clinical features
- Can consider stool evaluation and empirical anti-helminthics for high risk demographic groups or patients who require steroid treatments; response of eosinophilia improvement is usually fairly brisk after treatment of helminthic infections)
- Tests for primary haematological disorders are diverse as the causes are multiple; there isn't a one size fits all approach

Take Home Points 16:36

- Hunt for the etiology with a thorough history and physical examination – Secondary > Primary
- Look for end organ damage
- When in doubt, consult haematology