**Inflammatory bowel disease (IBD):**

Peripheral oligoarthritis 10-20%

**12%** of patient with UC (ulcerative colitis) & **20%** in patient with CD (Crohn's disease).

Arthritis of lower limb joints large & small joints, asymmetrical migratory & less often additive & deformity is rare, peripheral arthritis reflect activity of IBD & subsides with treatment of in IBD & colectomy lead to permanent remission of arthritis. HLA B 27 not associated with CD.

Axial involvement (sacroiliac involvement & spondylitis) 10%.

- Asymptomatic.
- Males develop complications > females.
- Not reflect disease activity.
- Run independent course so may precede illness.
- Colectomy does not halt its progression.
- HLA- B 27 association of 50%.

**Non-articular complications of IBD:**
1. **Skin lesion 25%:**

- Erythema nodosa; mirror of activity of bowel disease.
- Pyodermagangrenosum: painful deep skin ulceration is more serious skin manifestation but it is less common.
- Recurrent oral ulceration may reflect activity of CD.

2. **Anterior uveitis (acute) 11% of cases;** usually unilateral & transient pattern of eye inflammation characteristic of SPA patient.

   CD may also be associated with granulomatous uveitis that is more chronic.

**Treatment**

1. **NSAIDs** may exacerbate underlying IBD particularly UC.

   NSAIDs related side effect events also mimic flare of IBD & complicate management.

2. **Sulfasalazine** treat colonic inflammation & peripheral arthritis not axial.
3. Local steroid.
4. Systemic steroid may flare CD.
5. Antitumor necrosis factor; 
   - Infliximab affect joints (axial & peripheral) & bowel.
   - Etanercept affect arthritis but not bowel.

**Four main theories on pathogenesis of SPA related to HLA-B27:**

1. The arthritogenic peptide hypothesis; cytotoxic T-cells 7unique pep de specificity of HLA B27 are the main cause of chronic inflammation.

2. Self–association of HLA B27 molecule: unique property of HLA B27 that heavy chain can form homodimers  Misfolding within endoplasmic reticulum. The accumulation of misfolded proteins  proinflammatory intracellular stress response.

3. Alteration of intracellular handling of microbes due to HLA B27. HLA-B27 lead to less effect elimination of microbes such as salmonella in
conjunction with an upregulation production of cytokines.

4. **Recognition of HLA B27 as autoantigens** HLA itself can be recognized by CD 4+T-cells when presented by HLA class II as autoantigens.

Normal individuals have HLA B27 +ve 5-15%. Cytokines increased in AS:

- IL-6
- TNF