

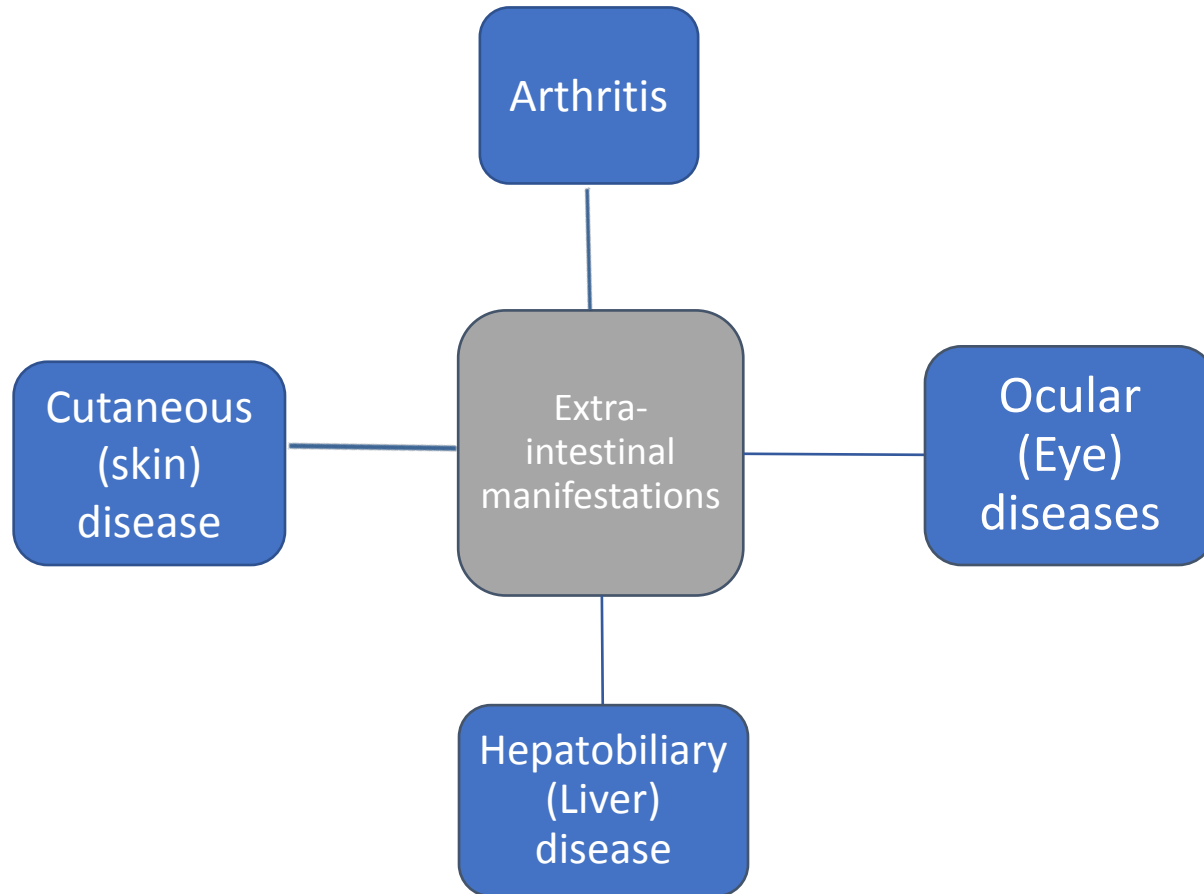
Extra Intestinal Manifestations (EIM) of IBD

Fatigue

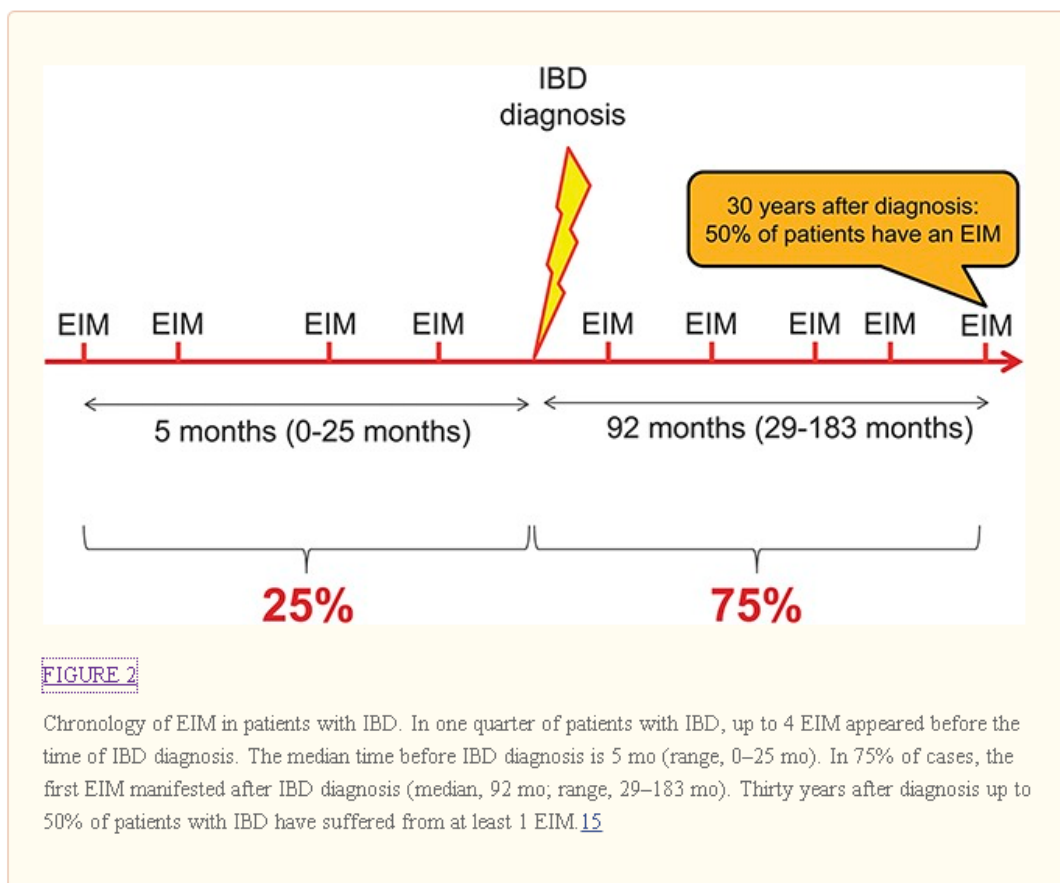
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EIM



Chronology



Arthritis (Joint pain)

- Most common EIMs in IBD, up to 40%
- Joint symptoms affecting peripheral large and small joints or the axial joints

Pauci-articular (type 1) < 5 large joints

- Usually related to disease activity, responds to bowel disease treatment and self-limiting

Poly-articular (type 2) 5 or more small joints

- Not related to disease activity, thus requires symptomatic treatments
- Treatments comprise short-term NSAIDs ; physiotherapy; local steroid injection; sulfasalazine and anti-TNF

Axial arthritis

- Ankylosing spondylitis and sacroiliitis ; Independent of the intestinal IBD activity
- Treatment is usually initiated by Rheumatologist

Skin manifestations



- A- Oral ulcers
- B- Sweet syndrome
- C- Erythema nodosum
- D & E – Pyoderma gangrenosum

Eye manifestations- red eye

Episcleritis



Uveitis



Liver diseases

- Primary sclerosing cholangitis (PSC) , Autoimmune hepatitis, Fatty liver, Gallstones, Pancreatitis etc
- PSC is the most common condition
 - Fibrosis and subsequently strictures develop in the biliary tree
 - This can result in end-stage liver disease and associates with an increased risk of biliary cancer
 - They have a significantly higher rate of colorectal cancer (4 fold increase) than patients without PSC, hence the need for annual colonoscopy

Extra-intestinal complications:

Metabolic bone disease

- Patients with IBD are at increased risk of developing osteopenia and osteoporosis
- Risk factors: Corticosteroid use, malnutrition, and proinflammatory cytokines
- Investigation: Bone mineral density
- Treatment : weight-bearing exercise, calcium, vitamin D, and pharmacologic agents, (e.g., bisphosphonates)

Extra-intestinal complications: Venous-thromboembolism (VTE)

- Patients with IBD are at increased risk for forming blood clots (2 folds higher than general population)
- Risk factors: Active disease, Smoking, OCP use, Dehydration, Prolonged immobilisation, Obesity, Long-distance travel, Pregnancy
- Provide VTE prophylaxis to all hospitalised IBD patients and after recent surgery

Fatigue

- Patients with chronic diseases including IBD describe their fatigue differently and qualitatively of greater severity than that typically depicted by healthy populations
- Even when in clinical remission, 2 out of 5 patients with IBD are reported to suffer fatigue
- Multidimensional: Physical, Cognitive, Affective

Fatigue- potential causes

Factors	Proposed mechanisms
Active inflammatory disease	Pro-inflammatory cytokine mediated
Nutrition related <ul style="list-style-type: none">- Iron deficiency +/- anaemia- B12 deficiency- Vit D deficiency- Selenium, Zinc, Mg deficiency	Malabsorption, inflammation-related, after small bowel operation
Hormone related <ul style="list-style-type: none">- Adrenocortical deficiency- Hypothyroidism- Hypoglycaemia- Testosterone deficiency	Secondary to corticosteroid therapy
Infections	
Other chronic illnesses <ul style="list-style-type: none">- chronic pain syndrome- fibromyalgia- autoimmune diseases	
Medications <ul style="list-style-type: none">- azathioprine, methotrexate, steroids	

Fatigue- potential causes

Factors	Proposed mechanisms
Physiological	Overwork, shift work, care of newborn, jet lag, bereavement
Psychological issues	IBD related or unrelated
Sleep quality (poor) -IBD-related (pain, night time diarrhoea) -Obstructive sleep apnoea -Caffeine/ alcohol/ stimulant use -Life stressors -Sedentary lifestyles (lack of exercise) -Poor sleep behaviour	Direct inflammation-mediated sleep disturbance

Management

- **Assess treatable conditions**
- **General anti-fatigue strategies**

Plan your day

- distribute your energy throughout the whole day
- prioritize important events
- alternate activities
- plan structured rests and breaks
- get help and support from your relatives

- **Interventions**

Non-pharmacological intervention

- Exercise
- Stress management: Relaxation, CCA Support group, Headspace App
- Cognitive behavioural therapy

Pharmacological intervention

- Anti-depressant, anti-anxiety medications

Thank you