

Inflammatory Bowel Disorder (IBD)

chronic condition → persistent and longstanding dz.

• resulting from inappropriate mucosal immune activation

[DEPTH OF BIOLOGY]

(IBD)

Crohn's disease

- Anywhere in GIT (most commonly Ileum, colon)
- Immune related disorder (triggered by pathogen)

ulcerative colitis

- large intestine
 - autoimmune disease
- ↓
triggered by self.

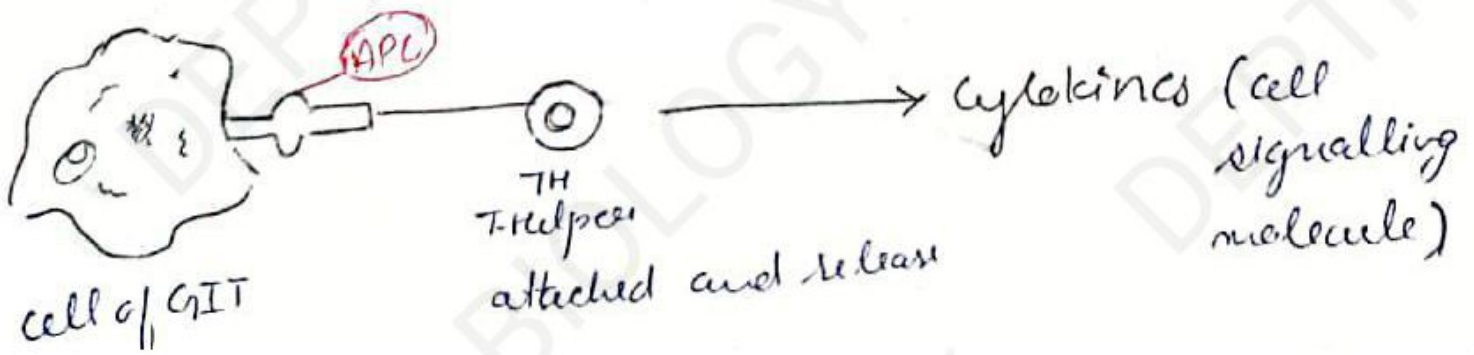
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Mycobacterium paratuberculosis

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Pseudomonas

Listeria



Like Interferon gamma

which further stimulates the Inflammatory response.

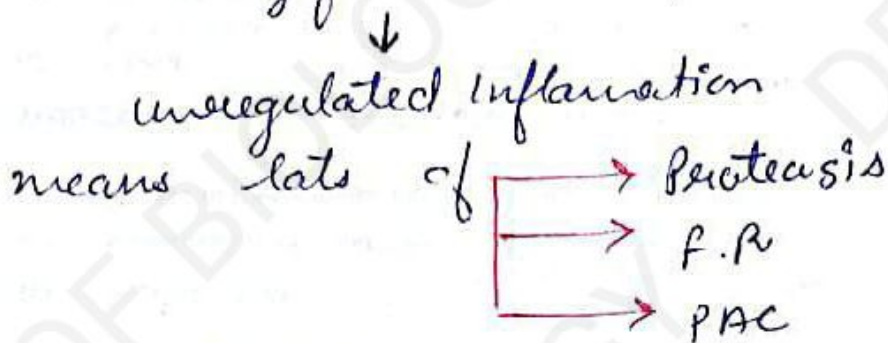
These cytokines attracts Inflammatory cells like Macrophage.

These macrophages starts releasing more inflammatory substance like

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✓ Chronic disease (dysfunctional step)



Proteolysis → leads to destruction of healthy tissue.

⌚ Dysfunctional step → Genetics

* Family memb = ↑ risk

* Gene Mutation

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↳ frame shift mutation

in NOD2 gene

↓
leads to total diff. amino acid formation

↓
Dysfunctional protein

In Intestine we have 4 layers. namely

→ Mucosa, submucosa, muscularis, serosa.

Now in Crohn's disease epithelial barrier fails,
new pathogens can enter

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Immune activation

Symptoms

- ① Pain in affected area most commonly in right lower quadrant which is associated with the Ileum
 - ② Diarrhoea and blood in stool
 - ③ Cells of large intestine damage and lose their ability to absorb water
hence, more H_2O excreted $\rightarrow$ Diarrhoea.
- $\rightarrow$ If cells of small intestine damage person may have malabsorption issue
 $\therefore$ small intestine imp. for nutrient absorption.

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Treatment

Pharmacological

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- $\rightarrow$ Anti-inflammatory drugs
 - $\rightarrow$ Antibiotics
 - $\rightarrow$ Immunosuppressant
- $\rightarrow$ If patient have severe symptoms.
- $\rightarrow$ control gut bacteria
 $\rightarrow$ reduce Immune response.

Pharmacological Treatment

- TNF (Tumor Necrosis factor inhibition)
- Immunosuppressive agents
- Corticosteroids
- Amino salicylates
- Antimicrobials

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Surgical

affected tissue gets surgically removed but it is
not a permanent cure [DEPTH OF BIOLOGY]

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inflammation may occur anywhere else in GIT

Non Pharmacological

- avoid smoking
- reduce alcohol consumption
- avoid use of NSAIDs [DEPTH OF BIOLOGY]
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(Non-steroidal anti-inflammatory drug)
- To incorporate more omega-3 fatty acid
- Avoid spicy and oily food.
- Take fibre rich diet.

Diagnosis

- Blood test
- Physical examination
- Endoscopy
- Biopsy
- Radiology