Coeliac Disease (Coeliac Sprue)

- Inflammatory disorder of small intestine occuring in genitically susceptible individual due to intolerance to wheat gluten and similar proteins found in rye, Barley & oats.
- In USA 1 out of 100 people.

Pathophysiology

People with HLA DQ 2/8 when take gluten.

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Picked by Secretory IgA → Into the lumen

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Deamaminated by Tissue Transglutaminase (tTG).

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Macrophages (Antigen Presenting cell) HLA DQ 2/8

T cells → Inflammatory Cytokines

B cells → Anti gliadin, Anti tTG, Anti endomysial antibodies (In muscle). Same like Lamina.

→ Destruction and Villus atrophy & Crypt hyperplasia.

Clinical Features

- Celiac disease is associated with other HLA autoimmune diseased associated.

Children (Weaning)

- Diarrhea.
- Malabsorption.
- Failure to thrive.
- Abdominal distention
- Short stature
- Delayed growth.
- Pubertal delay.

Adult (2nd or 3rd decade)

- Malabsorption
- Symptom vary
- Tiredness, Weight loss,
- Iron or Folate deficiency.
- Bloating, Dyspepsia

Dermatitis herpetiformis

- 10% of Coeliac disease has it.
- IgA deposit on dermo epidermal junction and cause crops of intensely itching blisters over the elbow, knees, back and buttocks.
- Symptoms and Investigations of Celiac disease
- Responds to Gluten free diet.

Investigations

Antibodies → Anti gliadin → Screening
Anti tTG
Anti endomyrial antibody → Sensitive and specific.

If IgA deficient, then IgG or screening.

Biopsy of Duodenum due to first affection
→ Crypt hyperplasia, Flattened villi

Haematology
→ Microcytic or Macrocytic anemia.
→ Hyposplenism (Target cells, Spherocytes, Howel-Jolly bodies)
→ ↓ Calcium, Magnesium, Protein, Albumin.
→ Serum IgA.
→ HLA Genotyping.

Complication
→ T-cell lymphoma.
→ Small Bowel Cancer

Treatment
→ Avoid gluten products.
→ Give Booklets.
→ Correct the deficiency.