



## **DISEASES OF THE SMALL INTESTINE**

### **Celiac disease:**

Celiac disease is an inflammatory disorder of the small bowel occurring in genetically susceptible individuals, which results from intolerance to wheat gluten and similar proteins found in, barley and, to a lesser extent, oats. It can result in malabsorption and responds to a gluten-free diet.

### **Clinical features(C/F):**

- 1- Can Occur at any age, In adults, the disease usually presents during the 3rd or 4th decade and females are affected twice as often as males.
- 2- Some have *Frank malabsorption*, while others develop non-specific symptoms, such as *tiredness, weight loss, folate deficiency* or *iron deficiency anaemia*.
- 3- Other presentations : **oral ulceration, dyspepsia** and **bloating**.
- 4- Unrecognized celiac disease is associated with mild under-nutrition and osteoporosis.

### **Disease associations of coeliac disease:**

- *Insulin-dependent diabetes mellitus*      • *Thyroid disease*.

### **Investigations:**

- 1- Duodenal biopsy : is the gold standard for Dx.
- 2- Antibodies.
- 3- Haematology and biochemistry : A-Anaemia : iron or folate deficiency B-Biochemical tests: ↓S.calcium, ↓S. magnesium, ↓S.total protein, ↓S.albumin or vitamin D.

### **Treatment:**

life-long gluten-free diet.

### **Complications :**

- risk of malignancy:
- 1- intestinal lymphoma,
  - 2- small bowel carcinoma.
  - 3- squamous carcinoma of the esophagus.

## **Irritable Bowel Syndrome**

About 10–15% of the population are affected . Young women are affected 2–3 times more often than men.

The cause of IBS is incompletely understood but biopsychosocial factors are thought to play an important role, along with factors, such as diet and the gut microbiota.



### **Clinical features:**

Recurrent abdominal pain or discomfort at *least 3 days/month* in the *last 3 months*, associated with *two or more* of the following:

- Improvement with defecation.
- Onset associated with a change in frequency of stool.
- Onset associated with a change in form (appearance) of stool.

Those with constipation tend to pass infrequent pellety stools, usually in association with abdominal pain or proctalgia. Those with diarrhoea have frequent defecation but produce low volume stools and *rarely have nocturnal symptoms*. Patients do not lose weight and are constitutionally well.

**Physical examination**, is generally unremarkable, with the exception of variable tenderness to palpation.

## **DISORDERS OF THE COLON AND RECTUM**

### **Tumours of the colon and rectum:**

Polyps (adenomas) : Polyps may be neoplastic or non-neoplastic. Colorectal adenomas are extremely common (50% of people over 60 years of age have adenomas). Nearly all forms of colorectal carcinoma develop from adenomas.

### **Clinical features:**

Usually asymptomatic and discovered incidentally. Occasionally, they cause bleeding and anaemia.

Treatment : Colonoscopic polypectomy should be done wherever possible, as this reduces subsequent colorectal cancer risk.

### **Colorectal Carcinoma**

Colorectal carcinoma : is the second most common internal malignancy.

### **Clinical features:**

- 1- In tumours of the *left* colon, fresh rectal bleeding is common and obstruction occurs early.
- 2- Tumours of the *right* colon present with anaemia from occult bleeding or with altered bowel habit, but obstruction is a late feature.
- 3- Colicky lower abdominal pain and rectal bleeding occurs.

### **Risk factors of colorectal carcinoma:**

#### **1- Dietary risk factors for colorectal cancer:**

**Increased risk:** - Red meat. -Saturated animal fat.

**Decreased risk:** - Dietary fiber. - Fruit and vegetables. -Calcium Folic acid Omega-3-



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fatty acid.

**2- Non-dietary risk factors for colorectal cancer:**

- Colorectal adenomas -Long-standing extensive ulcerative colitis.
- Pelvic radiotherapy, aspirin or NSAIDs.
- Obesity and sedentary lifestyle, Smoking, Alcohol.
- Cholecystectomy (effect of bile acids in right colon).
- Diabetes mellitus type 2 (hyperinsulinaemia).

**Clinical features:**

- 1- Fresh rectal bleeding is common and obstruction occurs early.
- 2- Anaemia from occult bleeding or with altered bowel habit.
- 3- Colicky lower abdominal pain and rectal bleeding occurs.
- 4- Carcinoma of the rectum usually causes early bleeding, mucus discharge or a feeling of incomplete emptying.

**Investigations:** Colonoscopy is the investigation of choice.