



433 Teams

# PRIMARY HEALTH CARE

Irritable bowel syndrome  
(IBS)

## Objectives:

- Overview & Definition of IBS.
- Pathophysiology of IBS.
- Sign & Symptoms of IBS.
- Diagnosis.
- Treatment.

# 1- IBS

## Definition :

IBS refers to an idiopathic disorder associated with an intrinsic bowel motility dysfunction that affects up to 20% of adults

- IBS is a **chronic continuous or remittent** functional GI illness
- **Psychiatric symptoms** often precede bowel symptoms (depression, anxiety, )
- Symptoms that are exacerbated by **eating and stress**
- **All laboratory test results are normal**, and no mucosal lesions are found on sigmoidoscopy.

## Symptoms of IBS:

- Abnormal **stool frequency** (>3 BM/day or <3BM/ week).
- Abnormal **stool form** (lumpy/hard or loose/watery)
- Abnormal **stool passage** (straining, urgency or feeling of incomplete evacuation)
- **Cramping abdominal pain (relieved by defecation)** location varies widely, but sigmoid colon is the common location of pain
- Bloating or feeling of **abdominal distention**
- **Passage of mucus**
- they may complain of extra GI symptoms as dizziness , anxiety.

## Diagnosis:

- this is a **clinical diagnosis and a diagnosis of exclusion**
- .- Initial test that may help exclude other causes include CBC, renal panel, fecal occult blood test, stool examination for ova and parasites, ESR, and possibly a flexible sigmoidoscopy . order these test only if there is suspicion

### Rome III diagnostic criteria\* for irritable bowel syndrome

<b>Recurrent abdominal pain or discomfort* at least 3 days per month in the last 3 months associated with 2 or more of the following:</b>
(1) Improvement with defecation
(2) Onset associated with a change in frequency of stool
(3) Onset associated with a change in form (appearance) of stool

\* Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis.  
 • Discomfort means an uncomfortable sensation not described as pain. In pathophysiology research and clinical trials, a pain/discomfort frequency of at least 2 days a week during screening evaluation for subject eligibility.  
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## 2-Iron Deficiency Anemia

### Causes:

A - Chronic blood loss• Most common cause of iron deficiency anemia in adults• Menstrual blood loss is the most common source. In the absence of menstrual bleeding, GI blood loss is most likely.

B - Dietary deficiency/increased iron requirements—primarily seen in these three age groups:

- Infants and toddlers—Occurs especially if the diet is predominantly human milk (low in iron). Children in this age group also have an increased requirement for iron because of accelerated growth. It is most common between 6 months and 3 years of age.
- Adolescents—Rapid growth increases iron requirements. Adolescent women are particularly at risk due to loss of menstrual blood.
- Pregnant women—Pregnancy increases iron requirements

C - Erythropoietin Therapy

### Clinical features

1. Pallor
2. Fatigue, generalized weakness
3. Dyspnea on exertion
4. Orthostatic lightheadedness
5. Brittle nails

6. Spoon-shaped nails (koilonychia)
7. Atrophy of the papillae of the tongue
8. Angular stomatitis
9. Brittle hair

### Diagnosis

1. Laboratory tests :

- ✓ Decreased serum ferritin—most reliable test available.
- ✓ Increased TIBC/transferrin level
- ✓ increased red cell distribution of width (RDW)
- ✓ Microcytic, hypochromic RBCs on peripheral smear

2. Bone marrow biopsy—the gold standard, but rarely performed :

Indicated if laboratory evidence of iron deficiency anemia is present and no source of blood loss is found.

3. If GI bleeding is suspected—colonoscopy : Colon cancer is a common cause of GI bleeding in the elderly.

### Treatment

#### 1. Oral iron replacement (ferrous sulfate)

- a. A trial should be given to a menstruating woman.
- b. Side effects include constipation, nausea, and dyspepsia.

#### 2. Parenteral iron replacement

- ✓ Iron dextran can be administered IV or IM.
- ✓ This is rarely necessary because most patients respond to oral iron therapy.

3. Blood transfusion is not recommended unless anemia is severe or the patient has cardiopulmonary disease.

## 3 - HYPOTHYROIDISM:

### Clinical features:

#### Cardiovascular

- Bradycardia
- Decreased cardiac output
- Low voltage ECG (due to pericardial edema)
- Cardiomegaly
- Pericardial effusion

#### Anemia

- Impaired hemoglobin synthesis
- Iron deficiency
- Folate deficiency
- Pernicious anemia

#### Neuro-muscular

- Severe muscle cramps
- Paresthesias
- Muscle weakness
- Carpal tunnel syndrome

**GIT**

- Chronic constipation
- Ileus

**Renal**

- Impaired GFR
- Water intoxication

**CNS**

- Chronic fatigue
- Lethargy
- Decreased concentration
- Depression
- Agitation
- Menorrhagia

**Diagnosis:**

All thyroid disorders are best tested first with a TSH

- Elevated serum TSH
- Low serum FT4 (or normal)

**High TSH (double normal) +normal T4 = treatment**

If the TSH level is suppressed, measure free T4 levels. TSH levels are markedly elevated if the gland has failed.

-Thyroid antibodies : Antithyroid peroxidase antibodies tell who needs thyroid replacement when T4 is normal and TSH is high

- TRH stimulation test

**Treatment:**

**Replacing thyroid hormone with thyroxine (synthroid) is sufficient.**

**Complications:**

**1- Myxedema coma**

**2- Myxedema and heart disease**

**3-Hypothyroidism and neuropsychiatric disease**

## 4 – GERD

### Definition :

GERD is a multifactorial problem. Inappropriate relaxation of the LES(decreased LES tone)is the primary mechanism, it causes reflux because the pressure gradient between the abdominal and thoracic cavities, which normally pinches the hiatus, is lost. leading to retrograde flow of stomach contents into the esophagus.

### Clinical features

Heartburn, dyspepsia :A.Retrosternal pain/burning shortly after eating (especially after large meals).

B.Exacerbated by lying down after meals, bending and straining.

C.May mimic cardiac chest pain

2. Regurgitation.

3. Waterbrash—reflex salivary hypersecretion.

4. Cough—due to either aspiration of refluxed material or a reflex triggered by acid reflux into the lower esophagus

5. Hoarseness, sore throat, feeling a lump in the throat.

6. Early satiety, postprandial nausea/vomiting.

### Diagnosis

1)Endoscopy with biopsy: the test of choice but not necessary for typical uncomplicated cases.

A.Indicated if heartburn is refractory to treatment, or is accompanied by dysphagia, odynophagia, or GI bleeding.

B.A biopsy should also be performed to assess changes in esophageal mucosa

2)Upper GI series (barium contrast study):This is only helpful in identifying complications of GERD (strictures/ulcerations), but cannot diagnose GERD itself.

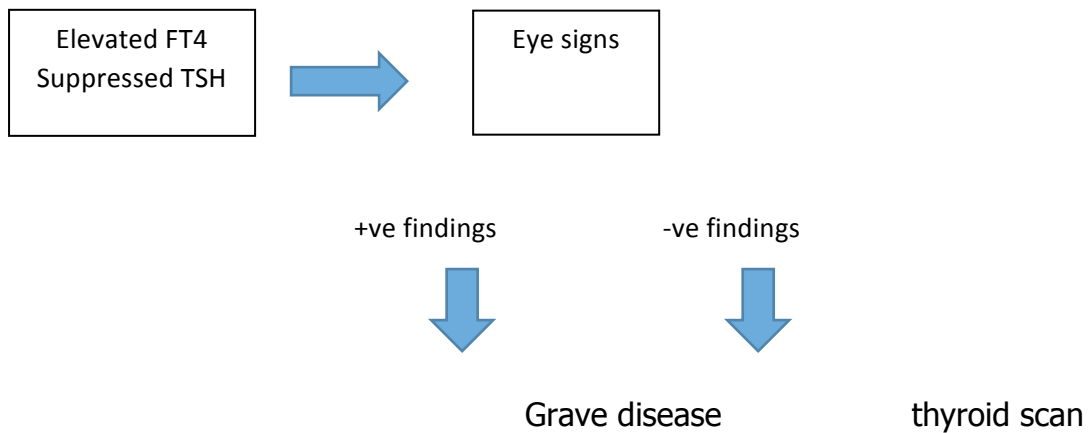
3)24-hour pH monitoring in the lower esophagus: This is the most sensitive and specific test for GERD. It is the gold standard, but is usually unnecessary. (esophageal PH should not be less than 4).

4)Esophageal manometry: Use if a motility disorder is suspected.

## 5- Hyperthyroidism

### Diagnosis:

All forms of hyperthyroidism have an elevated T4 (thyroxine) level. Only pituitary adenomas will have a high TSH level. In all the others, the pituitary release of TSH is inhibited.



Diagnosis	TSH	RAIU	Confirmatory
Graves disease	low	Elevated	+ve Anti-bodies
Subacute thyroiditis	low	decreased	tenderness
Painless "silent" thyroiditis	Low	Decreased	none
Exogenous thyroid hormone use	low	decreased	History and involuted non-palpable gland
Pituitary adenoma	high	Not done	MRI of head

### Treatment:

Diagnosis	Treatment
Graves disease	Radioactive iodine
Subacute thyroiditis	Aspirin
Painless "silent" thyroiditis	none
Exogenous thyroid hormone use	Stop use
Pituitary adenoma	Surgery



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