Gastrointestinal tract problems

Irritable Bowel Syndrome

IBS is defined as: a common bowel disorder characterized by **abdominal pain , abdominal distention / bloating and a change in bowel habit** (diarrhea and constipation may occur; sometimes they alternate).

IBS occurs in 10-20% of people worldwide. The cause is unknown, although it is sometimes related to particular foods, and is often precipitated or aggravated by stress.

SIGNIFICANCE OF QUESTIONS AND ANSWERS

Age:

Because of the difficulties in diagnosis of abdominal pain in children, it is best to refer such cases. IBS usually develops in young adult life. It is most common in people between the age of 20 and 30 and affects twice as many women as men. If an older adult presents for the first time with no previous history of bowel problems, a referral should be made.

Symptoms:

IBS has three key symptoms, which include abdominal pain (which may ease following a bowel movement), abdominal distension/bloating and disturbance of bowel habit

A-Abdominal pain:

The pain can occur anywhere in the abdomen. It is often central or left sided and can be severe. When pain occurs in the upper abdomen, it can be confused with peptic ulcer or gall bladder pain. The site of pain can vary from person to person and even for an individual. Sometimes, the pain comes on after eating, and a period of relief follows defaecation

B-Bloating:

A sensation of bloating is commonly reported. Sometimes it is so severe that clothes have to be loosened.

C-Bowel habit:

Diarrhea and constipation may occur; sometimes they alternate. The patient feels an urgent desire to defecate several times after getting up in the morning and following breakfast, after which the bowel may settle .There, may be a feeling of incomplete emptying after a bowel movement. The motion is often described as loose and semi-formed rather than watery. Sometimes it is like pellets or pencil shaped. There may be a mucus but never blood.

D-Other symptoms: Some patients may also complain of nausea, and **other unrelated symptoms such as:** backache, feeling tiered. Some patients get upper abdominal discomfort and indigestion; this is sometimes known as ‘functional dyspepsia’. Urinary symptoms may be associated with IBS, e.g. frequency, urgency and nocturia (the need to pass urine during the night).

Duration:

IBS tend to be episodic. The patient might have a history of being well for a number of weeks or months in between bouts of symptoms.

Previous history: You need to know whether the patient has consulted the Dr. about the symptoms and if so, what they were told. A history of travel abroad and gastroenteritis sometimes appears to trigger an irritable bowel. Any history of previous bowel surgery would suggest a need for referral.

Aggravating factors: **Stress** appears to play an important role and can precipitate and exacerbate symptoms. **Caffeine** often worsens symptoms. The sweeteners sorbitol and fructose have also been reported to aggravate IBS. Other foods that have been implicated are **milk** and **dairy products**, **chocolate**, **onions** and **garlic**.

Medication: You need to know:

1-What had been tried to treat the condition and whether it produced an improvement.

2-Other medicines the patient is taking. In many patients, IBS is associated with anxiety and depression, but it is not known whether this is cause or effect.

When to refer
Children
Older person with no previous history of IBS
Pregnant women
Blood in stools
Unexplained weight loss
Caution in patients aged over 55 years with changed bowel habit
Symptoms/signs of bowel obstruction
Unresponsive to appropriate treatment

Treatment timescale
Symptoms should start to improve within 1 week.

MANAGEMENT

A- Diet: Patient with IBS should follow the recommendation for a healthy diet (low fat, low sugar, high fiber). In addition patient should avoid any food they know to exacerbate their symptoms. Various foods such as beans, and fatty meals, and gas-producing foods such as legumes, may aggravate symptoms in some patients. This has led many patients to exclude these suspected aggravating foods from their diet although the effectiveness of such practices remains controversial

B- Exercise There is limited evidence that increased physical activity improves IBS, but it will increase overall health and useful for stress.

C- Antispasmodics: Antispasmodics are the main stay of OTC treatment of IBS. They work by a direct effect on the smooth muscle of the gut, causing relaxation and thus reducing abdominal pain. The patient should see an improvement within a few days of starting.

1-Mebeverine: it should be the 1st line choice. It is given in a dose of 135 mg (1 tablet) three times a day, preferably 20 minutes before meals.

The drug should not be recommended for pregnant or breastfeeding women, for children under 18 years of age.

2-Hyoscine butylbromide: can be used in adults and children aged over 6. The recommended dose for adult is one tablet(10 mg) three times a day , although this can be increased to two tablets four a day if necessary.

Hyoscine butylbromide is likely to cause antimuscarinic (anticholinergic) adverse effects (dry mouth, urinary symptoms, blurred vision, etc.)

3-Alverine citrate: Alverine citrate is given in a dose of 60–120 mg (one or two capsules) up to three times a day. The drug should not be recommended for pregnant or breastfeeding women or for children.

Side effects are rare, but nausea, pruritus, rash and headache.

D- Laxatives and antidiarrheals:

1-In addition, Bulk-forming and stimulant laxatives can be used to treat constipation predominant (IBS-C). Insoluble fiber (e.g. bran) may exacerbate symptoms and its use should be discouraged.

2-Use of OTC antidiarrheals such as **loperamide** is appropriate only on an occasional, short-term basis.

E- Compound preparations:

Bulking agents are also available in combination with antispasmodics.

e.g. **Fybogel® Mebeverine:** effervescent Granules (in sachets), contain ispaghula husk (Bulk-forming laxatives) and mebeverine hydrochloride.

Dose: 1 sachet in water, morning and evening 30 minutes before food; an additional sachet may also be taken before the midday meal if necessary

F- Probiotics:

Probiotics such as ***lactobacillus*** and ***Bifidobacterium*** have also been promoted for IBS. The studies showed that probiotics appear to be effective however the size of the effect need to be established

Extra notes

Prescription therapy for IBS:

1-A tricyclic antidepressant can be used for abdominal pain or discomfort [unlicensed indication] in patients who have not responded to laxatives, loperamide, or antispasmodics.

2-A selective serotonin reuptake inhibitor may be considered in those who do not respond to a tricyclic antidepressant [unlicensed indication]

Haemorrhoids

Haemorrhoids (commonly known as piles) can produce symptoms of itching, burning, pain, swelling and discomfort in the perianal area and anal canal and rectal bleeding. They are swollen vascular cushions, which protrude into the bowel lumen during defecation.

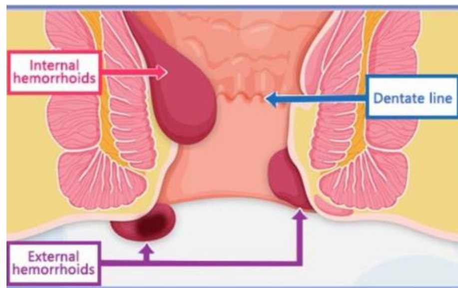
Prevalence and epidemiology

Hemorrhoids can occurs at any age but are rare in children and adults under the age of 20. Prevalence appears to be increased with increasing age and is most common in patients between the ages of 45-65 years. In addition, there is a high incidence of hemorrhoids in pregnant women.

Etiology: The cause of hemorrhoid is probably multifactorial with anatomical (degeneration of elastic tissue), physiological (increased anal canal pressure), and mechanical (straining at defecation) processes implicated. In addition hemorrhoid is often exacerbated by inadequate dietary fiber or fluid intake. Pregnancy is believed to precipitate hemorrhoids in susceptible women.

Types of hemorrhoids:

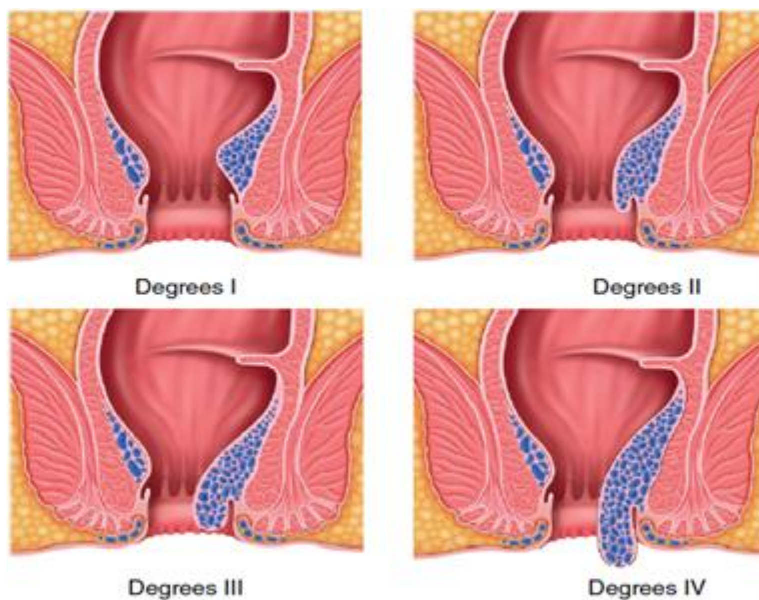
1-Superior to the anal sphincter there is an area known as the dentate line. Hemorrhoids above the dentate line are classified as **internal**, while hemorrhoids below the dentate line are classified as **external**. The term **mixed hemorrhoids** is used when internal and external hemorrhoids coexist



2-Internal hemorrhoids should not cause pain unless complications develop, since this area has no nerve fibers

3- **Furthermore internal haemorrhoids are graded according to severity:**

grade I, do not prolapse out of the anal canal; **grade II**, prolapse on defecation but reduce spontaneously; **grade III**, are pushed back through the sphincter after defaecation manually by the patient; and **grade IV**, cannot be reduced.



Patient Assessment (Specific questions to ask)

A-Duration: Patient with symptoms that have been constantly present for more than 3 weeks required referral for further investigations.

B-Severity: Medication is unlikely to help patient who has to manually reduce hemorrhoids or of 3 rd or 4th degree and required referral (fourth degree hemorrhoids are at risk of thrombosis and gangrene.

C-Pain:

1- Pain is not always present. Pain associated with hemorrhoids tend to occur on defecation and at other time for example when sitting. Sharp or stabbing pain at the time of defecation can suggest an anal fissure and required referral.

2-**Note:** A fissure is a minute tear in the skin of the anal canal. It is usually caused by constipation and can often be managed conservatively by correcting this and using a local anaesthetic-containing cream or gel. Sometimes, a vasodilatation ointment is prescribed, such as **Glyceryl trinitrate (GTN)** rectal ointment, or a topical calcium channel blocker, such as **diltiazem cream**, which causes anal muscle relaxation. In severe cases, a minor **operation** is sometimes necessary .

3-**One complication of external hemorrhoids** is that they can '**strangulate'** (the blood supply to the hemorrhoid can be cut off). This can be intensely painful. Another possible complication is a blood clot (**thrombosis**) that can form within the vascular anal cushion, and this also causes **intense pain** if it occurs

D-Itching: The most troublesome symptom for many patients is itching and irritation of the perianal area rather than pain. **Persistent or recurrent irritation, which does not improve,** is sometimes associated with rectal cancer and should be **referred**.

E-Bleeding:

1-Bright blood does not normally have a sinister significance, Blood may be deposited onto the stool from haemorrhoids as the stool passes through the anal canal, Patients experiencing this for the first time should be referred

2-Blood mixed in the stools, giving them a dark or black appearance. This indicates bleeding within the gastrointestinal system and must be investigated.

3-Large volumes of blood not associated with defecation; this may indicate carcinoma and must be investigated (patient with hemorrhoids does not usually bleed at time other than defecation).

When to refer
-Duration of longer than 3 weeks
-Unexplained rectal bleeding
-Change in bowel habit (persisting alteration from normal bowel habit)
-Suspected drug-induced constipation
-Associated abdominal pain/vomiting
- Malaise, fever or weight loss
- Significant pain
-Patients who have to reduce their hemorrhoids manually

F-Constipation: Constipation is a common causatory or exacerbatory factor in hemorrhoids. In addition if piles are painful, patient try to avoid defecation which makes the constipation worse.

G-Bowel habit: A persisting change in bowel habit (persisting alteration from normal habit) required referral (may be due to tumor).

H-Associated symptoms: Symptoms of hemorrhoids are usually local (pain, itching…). Other symptoms such as abdominal pain, **vomiting**, loss of appetite, **tenesmus** (desire to defecate when there is no stool), **seepage** (involuntary passage of fecal material) required referral.

I-Medication

To know:

1- Products already used to treat hemorrhoids.

2- Drug-induced constipation which exacerbate the condition.

3-Rectal bleeding in a **patient taking warfarin or another anticoagulant** is an indication for urgent referral

Treatment timescale:

Patient should see the Dr. If the symptoms have not improved after 1 week.

Management

A-Non-drug measures:

1-Increase the amount of fiber and fluid in the diet.

2-Avoid lifting heavy objects.

3-Avoid delaying the urge to defecate.

4-Avoid prolonged sitting in the toilet to reduce straining and pressure on the hemorrhoids vessels.

5-Wash the perianal area with warm water after each bowel movement. In addition many patients find that warm bath soothes their discomfort.

B-pharmacological therapy:

1-The OTC products for hemorrhoids include the followings (alone or commonly in combined products) :

Table 1: ingredients included in products for haemorrhoids		
Type	**Example(s)**	**Purpose(and mechanism)**
Anesthetics	Lidocaine, benzocaine	Reduce pain and itching
Astringents	Bismuth, zinc, Peru balsam	Precipitate the surface protein producing coat over hemorrhoids to reduce itching, irritation, ….
Anti-inflammatory	Hydrocortisone (the only OTC)	Reduce inflammation and swelling to relief pain and itching.
Protectants	Zinc oxide, AL-hydroxide, calamine, shark liver oil	Form a barrier on skin to prevent irritation, itching, and loss of moisture
Counter-irritants	Menthol	Give tingling sensation to overcome pain and itching.
Vasoconstrictor	Phenylephrine, ephedrine…	Reduce swelling to relief pain and itching.

2-Laxatives: The short-term use (1-2 days) of a stimulant laxative to relieve constipation while dietary fiber and fluid are being increased. For patients who cannot adapt their diet, bulk-forming laxative may be used long term.

How to use OTC products

1-Ointments and creams can be used for internal and external hemorrhoids while suppositories are used for internal hemorrhoids. However both are used twice daily (morning and evening) and after each bowel movement.

2-Many people prefer suppositories, but these products are often not effective because they tend to slip into the rectum and melt, thus bypass the anal canal where the medication is needed. In general Ointments and creams are preferred over suppositories.

3-Suppositories have a relatively slower onset of action than with other dosage forms because the solid product must dissolve to release the active ingredients.

4-To prolong retention rates in the anorectal area, some health care providers recommend introducing the base of the suppository first, rather than the tapered end.

5-When used intrarectally, the ointment may be inserted using an applicator or finger but the applicator is preferred because it can reach an area where the finger cannot reach. The applicator should be lubricated by the ointment before insertion.

6-If the patient remains upright after insertion of a suppository or ointment, the active ingredients may not distribute evenly over the anal mucosa. Therefore, after insertion, the patient should lie on the left side with knees bent so that the preparation remains in the affected area for at least 15–20 minutes.

7-Products that contain hydrocortisone are restricted to those aged above 18 years and for no longer than of 7 days of continuous treatment.

Note: Topical nitroglycerin promotes the healing of anal fissure by increasing local blood flow and reducing pressure in the internal anal sphincter. Topical CCB reduce the anal sphincter pressure.

Heartburn

Background

Gastro-esophageal reflux disease (**GERD**), also known as reflux esophagitis, and commonly called **heartburn**.

Symptoms of heartburn are caused when there is reflux of gastric contents, particularly acid, into the esophagus, which irritate the mucosal surface.

Unlike the stomach lining, the esophageal mucosa has no protection against gastric acid and readily irritated by acid.

Patient assessment with GERD

1-Signs and symptoms

A burning sensation or pain experienced in the upper part of the stomach (i.e. the lower chest) in the Medline (epigastrium) and tends to move upwards behind the breastbone . The pain may be felt only in the lower area or may be felt right up to the throat causing an acid taste in the mouth .

2-Precipitating or aggravating factors.

These are:

A-Bending or lying down.

B-Overweight.

C-After large meal.

D-Pregnancy(mechanical and hormonal influence).

E- **Stress**

F-Tight-fitting clothing

3-Severity and location of pain: Sometimes, the pain can come on suddenly and severely, and even radiate to the back and arms (the pain can mimic a heart attack), and hence urgent referral is essential.

4-Difficulty in swallowing and regurgitation:

1-The difficulty may be either **discomfort when food or drink is swallowed or a sensation of food or liquids sticking in the gullet**. Both require referral.

2-A history of a sensation that food sticks as it is swallowed or that it does not seem to pass directly into the stomach is an indication **for immediate referral**. It may be due to obstruction of the esophagus, e.g. by a **tumor**, or can result from **severe esophagitis with inflammation and narrowing** (this is caused by long-standing acid reflux where the continual inflammation causes scarring. Scars contract and can therefore cause narrowing of the esophagus).

3-Regurgitation can be associated with difficulty in swallowing. It occurs when recently eaten food sticks in the esophagus and is regurgitated without passing into the stomach. Regurgitation can be caused by a cancer as well as by less serious conditions, such as an esophageal stricture due to esophagitis. **Regurgitation** required referral

5-Age: Heartburn is not normally experienced in childhood; therefore, children with symptoms of heartburn should be referred for further investigations.