Gastrointestinal history and examination

The gastrointestinal tract extends from the lips to the anus and includes the liver, biliary system and pancreas although, for the purpose of this article, consideration will start at the oesophagus, as problems with dentition or with salivary gland disorders and tumours are covered elsewhere.

General principles

Ask open questions and give the patient time to elaborate. However, it is very important to ascertain that you are 'speaking the same language'. Avoid technical terms, jargon or abbreviations. Make sure that you understand what the patient means and get amplification of specific points. To patients, the word 'stomach' can mean anywhere from the diaphragm to the groin and includes the genitals. 'Do you have a hard stool?' may make the patient wonder if the chair in the kitchen is comfortable. Does 'coughing up blood' mean haemoptysis or haematemesis? Patients often describe pain as 'chronic', meaning severe rather than of long-standing duration.

Elucidation of specific points

The following are important aspects of the history, which require clarification:

Dysphagia

- What does difficulty in swallowing mean? Dysphagia has many components:

    - Is there pain?
    - Is there a feeling of obstruction?
    - Is food regurgitated? If so, how long after swallowing?
    - Is it a burning pain just after eating?
    - If there is complaint of obstruction, ask the patient to point to the level. The obstruction is usually at that level or below.
    - Globus hystericus is usually accompanied by a rather theatrical performance and, unlike neurological disorders, the patient denies being able to swallow anything but does not drown in their own saliva and often has not lost weight.

- See the separate articles Dysphagia, Oesophageal Strictures, Webs and Rings, Gastro-oesophageal Reflux Disease and Oesophageal Cancer.

- Flatulence, wind and bloating are often caused by aerophagy (swallowing air) or a diet too rich in fibre.

Abdominal pain

If there is complaint of abdominal pain, ask the patient to point to the location of the pain.

- Does the patient use a single finger or spread the fingers and move the palm over much of the abdomen?
- What is the nature of the pain? Note body language. A burning pain is often described with an open hand moving upwards but a clenched fist is used to describe colic.
- Are there any aggravating or relieving factors? The former may include fatty food. The latter may include sitting forward or taking medication.
- How often is the pain felt and how long does it last?
- Is there radiation elsewhere?

Do not accept such terms as 'indigestion' without clarification of exactly what the symptoms are. 'Indigestion', aggravated or induced by exercise and relieved by rest, is probably angina.

See the separate Abdominal Pain and Abdominal Pain in Pregnancy articles.

Bowel function

It is very easy for the doctor and patient to misunderstand each other on this subject.

- Rather than asking if bowels are normal, as normal is such a variable parameter, enquire about any change in bowel habit and its duration.
- Do not accept words such as constipation or diarrhoea without further enquiry. What does the patient mean?
    - How often?
    - What is the consistency?
    - Is there any urgency or faecal incontinence?
    - Is defecation painful (dyschezia)? Is there tenesmus?
- Is there blood or mucus (call it slime to the patient) in the stool?
    - If there is blood is it always there or just occasionally?
    - Is it mixed in with the stool or separate and splashes the pan? This will help indicate if the bleeding is from low down or higher up.
- What is the colour of the motion?
    - Melaena is black, sticky and tarry and results from a significant high gastrointestinal bleed.
    - Steatorrhoea is pale, bulky, and very offensive in smell. It is often frothy, floats and takes several attempts to flush away. This indicates gastrointestinal malabsorption of fats.

The Bristol Stool Chart may help [1] [2] .

Systematic enquiry

This is especially important in this field.

- Is appetite good?
- Has it changed?
- Is there any change of weight up or down?
    - If so, is this intentional? Distinguish dieting from abnormal weight loss.
    - How much and over what period of time?
    - Not everyone watches their weight. Are waistbands any tighter or looser than before? Loss of weight means malnutrition.
    - Weight gain and expansion will accompany an enlarging abdominal mass or ascites.
- When seeing females aged between about 12 and 50 years record the date of the last menstrual period. Failure to do so with subsequent failure to diagnose a mass arising from the pelvis will cause immense embarrassment.
- Ask about smoking and alcohol consumption. If there is any reason to suspect excessive consumption of alcohol, refer to information under alcohol dependency for diagnosis and management in primary care, help and advice.
    - Replies like 'I just drink socially' are meaningless, as they depend upon the company one keeps.
    - Establish whether the patient drinks every day.
    - Record exact amounts smoked and drunk and, if a range is given, record the upper figure, as it is more likely to be accurate.

- Ask about medication and make it clear that this means not just prescribed medication but drugs bought over the counter, 'alternative remedies' and illicit drugs.

    - Herbal remedies can cause hepatitis.
    - Opiate abuse will cause nausea, anorexia and constipation.
    - Intravenous drug abuse carries a risk of hepatitis C, hepatitis B and HIV infection.
    - Cocaine and amfetamine derivatives cause appetite suppression.
    - Anabolic steroid abuse can cause hepatitis and even hepatocellular carcinoma.
    - Establish in what form drugs are taken. Non-steroidal anti-inflammatory drugs as suppositories may still cause gastritis, as the drug is transported to the stomach in the blood. There is also a high risk of proctitis.
    - The patient may admit to visiting health spas and receiving colonic lavage or high colonic irrigation.
- If there is proctitis, a delicate enquiry as to the person's sexual predilection may be required in both males and females.
- Ask whether the patient eats a normal diet. Changes in eating habits may have resulted from the symptoms.
- Note family history.
- Ask about foreign travel and living abroad. Traveller's diarrhoea is just one possibility. Many other exotic diseases can be acquired.

Examination

This is covered in a number of other articles too.

- Abdominal examination gives a general account and is orientated to examination of the acute abdomen or abdominal masses.

- Specific areas with problems are covered in the separate articles Left Upper Quadrant Pain, Right Upper Quadrant Pain, Right Iliac Fossa Pain, Left Iliac Fossa Pain and Loin Pain.
- Children pose specific difficulties. See the separate Paediatric Examination article.

As always, examination begins by looking at the patient.

Inspection

A general inspection precedes inspection of the abdomen.

- Establish what the patient's nutrition is like. Note whether the patient is thin and wasted, bloated and oedematous or obese.
- Note whether the skin looks pale or yellow. In black people, a slightly yellow colour of the palms is equivalent to pallor.
- Features of scleroderma may account for dysphagia.
- Look for liver palms and a hepatic flap as described in the separate Abdominal Examination article.
- Look for abnormalities of the nails such as clubbing or koilonychia.
- Check the sclerae for jaundice.
- Note the angles of the mouth. Angular cheilitis may suggest iron deficiency. In pernicious anaemia around 50% of patients have a smooth tongue with loss of papillae but this can also be due to friction in those with a plastic palate with upper dentures.
- Note whether the mouth looks healthy.
- Note whether dentition is good.
- Note whether there is halitosis.
- Oral candida may be associated with oesophageal candidiasis, especially if immunity is suppressed.

Only now is it time to turn to the abdomen and, as always, first look.

- Abdominal distension may be apparent.

- Abdominal masses may be apparent on inspection.
- High pressure in the abdomen may cause protrusion of the umbilicus. Cirrhosis or portal hypertension may produce prominent blood vessels on the abdomen.

Now it is time for palpation and, again, reference is made to examination of the abdomen, which also includes palpating for splenomegaly and detection of ascites. Hepatomegaly can be difficult to detect and it is often useful to percuss the liver edge. The liver is dull to percussion while bowel is resonant.

- Check for herniae. Femoral hernia is uncommon but very liable to strangulate.
- In secondary care the dictum is that no abdominal examination is complete without rectal examination. In primary care this is less vigorously applied, especially if the findings are unlikely to affect management.
- Few GPs have the skills or resources for sigmoidoscopy but proctoscopy and digital rectal examination should be within the capacity of everyone.
- Such examination may reveal rectal prolapse or an obvious cause of rectal bleeding, although haemorrhoids are so common that they do not exclude other causes of bleeding.
- Carcinoma of the rectum may well be palpable.
- If an elderly person has diarrhoea, it is a distinct possibility that it is really spurious diarrhoea caused by faecal impaction with overflow. Therefore, before starting medication that may aggravate constipation, it is imperative to perform a rectal examination. The old adage is 'Put your finger in it before you put your foot in it.'

Differential diagnosis

This includes two important aspects:

Be aware of the warning signs that may indicate malignancy

- Malignancy should be considered with significant, unintentional weight loss, progressive dysphagia, chronic blood loss, persistent vomiting and change of bowel habit in excess of six weeks' duration, especially over the age of 40.
- Dyspepsia presenting for the first time at age over 55 or irritable bowel syndrome presenting for the first time at age over 40 is also a warning feature.

Be aware of the many diseases not of the gastrointestinal tract and which need to be considered

- In females think of gynaecological conditions, although they rarely cause pain outside the pelvis.
- Note the full differential diagnosis of pain in the chest. Both chest pain and epigastric pain can be cardiac in origin and many a patient with 'indigestion' has died of heart disease.
- Abdominal pain can be from the urinary tract or a dissecting abdominal aortic aneurysm.
- Thyrotoxicosis can cause weight loss.
- Congestive heart failure can cause engorgement of the liver.
- Metabolic disease such as porphyria can cause abdominal pain.
- Depression or psychotic illness can cause hypochondriacal or bizarre symptoms. Recognition of depression is not always easy but remember that depression can result from somatic illness and is not necessarily the cause. Screening for depression in primary care may be employed if there is suspicion.

Children

Children, especially when small, represent an entirely different problem from adults.

- An important feature for children and babies is failure to thrive. Centile charts plotting weight and height with time are extremely useful.

- Children vomit very easily and are often remarkably unperturbed by it. Parents will recall how a child has vomited during a meal and, before they have finished clearing it up, the child is eagerly finishing the meal.
- Vomiting with a high temperature, unrelated to the gastrointestinal tract, is common.
- The frequency of defecation in milk-fed babies is extremely variable as there is little residue, especially if they are breastfed.
- If children are asked where it hurts, they usually point to the umbilicus, even if the primary lesion is tonsillitis or otitis media.
- Acute surgical problems in children can be very difficult to diagnose.

Examination of children also presents special difficulties. These are covered in the separate Paediatric Examination article.

If rectal examination is required for a baby, use the little finger, as it is smallest. Think carefully before performing a rectal examination on an older child, as it may be as traumatic as sexual abuse.

Further reading

- British Society of Gastroenterology
- The Primary Care Society for Gastroenterology (PCSG)

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