



Fig. 6.1 Surface anatomy. A Abdominal surface markings of non-alimentary tract viscera. B Surface markings of the alimentary tract. C Regions of the abdomen. E, epigastrium; H, hypogastrium or suprapubic region; LF, left flank or lumbar region; LH, left hypochondrium; LIF, left iliac fossa; RF, right flank or lumbar region; RH, right hypochondrium; RIF, right iliac fossa; UR, umbilical region.

6.1 Surface markings of the main non-alimentary tract abdominal organs	
Structure	Position
Liver	Upper border: fifth right intercostal space on full expiration Lower border: at the costal margin in the mid-clavicular line on full inspiration
Spleen	Underlies left ribs 9–11, posterior to the mid-axillary line
Gallbladder	At the intersection of the right lateral vertical plane and the costal margin, i.e. tip of the ninth costal cartilage
Pancreas	Neck of the pancreas lies at the level of L1; head lies below and right; tail lies above and left
Kidneys	Upper pole lies deep to the 12th rib posteriorly, 7 cm from the midline; the right is 2–3 cm lower than the left

** Peptic ulcers :

• pain : gradual , gnawing , in the **epigastrium** , radiating to the back , especially **Noturnal** and with hungry exacerbated by : stress , alcohol , spicy foods , NSAIDs
relieved by : Food , antacids , vomiting

→ here we are talking about the duodenal one

- The most common cause of upper GI Bleeding and can manifest as **Melaena** , haematmesis or both
- peptic ulcers really cause painless vomiting unless they are complicated by pyloric stenosis
- recurrent > previous similar attacks
- **can be familial** > past family history is important
- acquired (environmental) >> such as transmission of **H.pylori infection**
- **smoking is a risk factor** smoking increases the risk of (esophageal cancer , colorectal cancer , Crohn's disease and peptic ulcers) while it's a protective factor for ulcerative colitis
- **waterbrash** (salivation reflex) >> mostly with GERD, rarely with peptic ulcer

complications:

- it can **perforate** >> sudden onset of severe abdominal pain rapidly progressing to become generalized and constant (acute abdomen) (this already indicates hollow viscus perforation) + vomiting at onset
- it can **bleed** >> leading to hypertension and tachycardia following the onset of abdominal pain

** GERD :

• pain : **Retrosternal epigastric** , sudden , radiates to the back sometimes to the arms , often at **night time** exacerbated by **laying a flat** , bending forward , some food relieved by **antacids** , slightly by nitrates but not rest

- causes **cough and waterbrash**
- can cause esophageal ulceration or esophagitis >> **odynophagia**
- can be caused by hiatus hernia

→ may indicate oesophageal ulceration or oesophagitis from gastro-oesophageal reflux or oesophageal candidiasis. It implies intact mucosal sensation, making oesophageal cancer unlikely.

- **obesity is a risk factor**
- when heartburn is the principal symptom , GERD is the most likely diagnosis

** Acute pancreatitis :

• pain : **epigastrium and left hypochondrium** , sudden , radiating to the back , for > 24h exacerbated by : alcohol , eating (they don't eat during bouts = Anorexia) \ relieved by : sitting upright
• severe pain rapidly **eased by potent analgesia** is more typical of acute pancreatitis or peritonitis secondary to ruptured viscus

• **alcohol is a risk factor** (common to occur after heavy drinking)

- commonly causes **vomiting**
- it's a rare cause of ascites (very high amylase content)
- **it's a cause of secondary DM**
- **steatorrhea** comes with chronic pancreatitis not the acute one

→ common in Celiac disease , chronic pancreatitis , and pancreatic insufficiency due to cystic fibrosis

- upon examination : there may be **periumbilical or lion bruising** (this comes with haemorrhagic pancreatitis)
+ with Aortic rupture and ruptured ectopic pregnancy

← cullen ↓ Grey turner

**** Biliary colic :** colic is a misnomer



more than this > it's cholecystitis

- pain : Epigastium \ right hypochondrium , radiating to below right scapula , (<6hours) constant , exacerbated by eating (unable to eat during bouts)
- can cause vomiting (after the pain had started)
- most common reason for the biliary colic is gallstones (biliary obstruction)
- biliary obstruction >> causes obstructive jaundice (remember that jaundice become clinically detectable when the bilirubin concentration rises above 3 mg\dl)