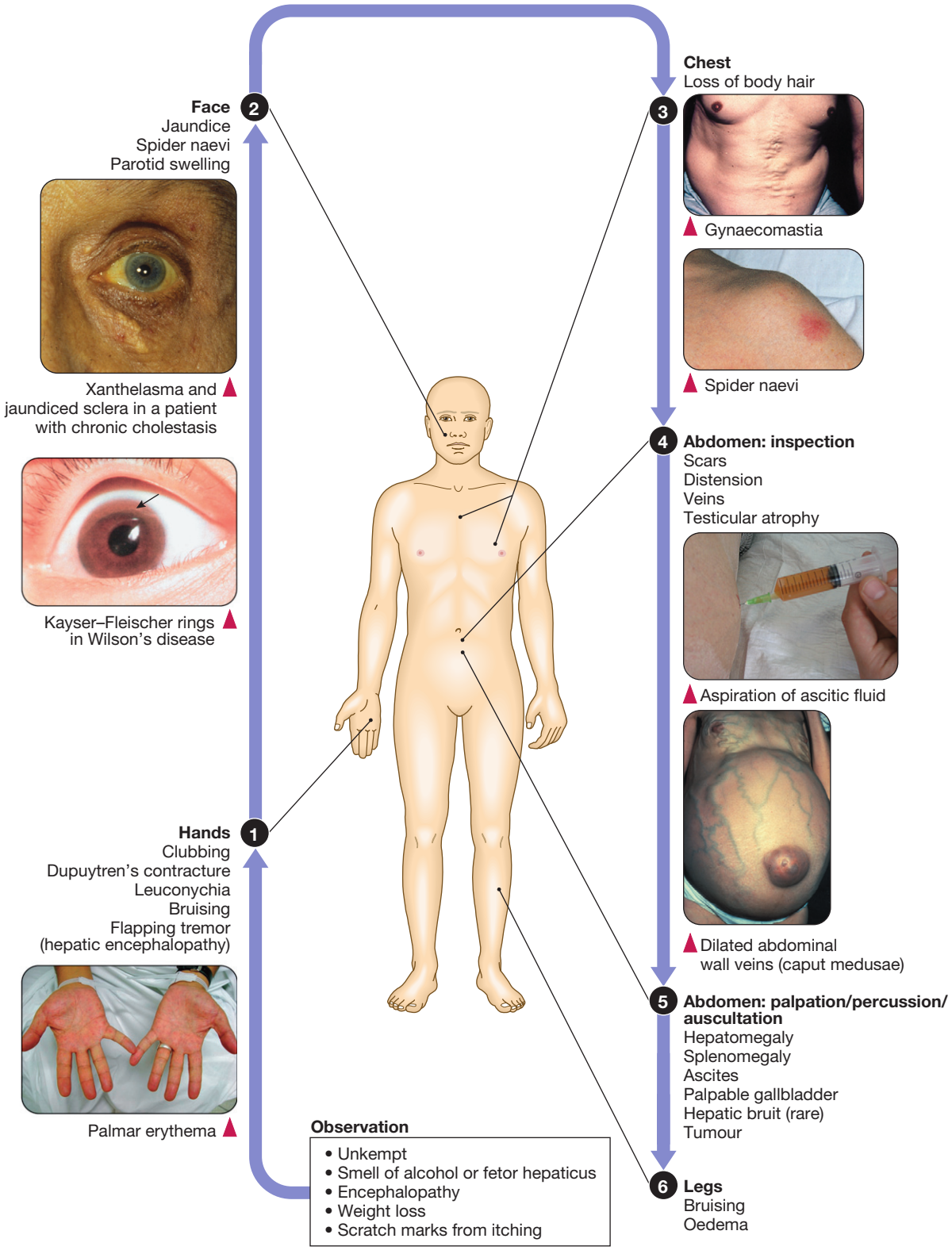
CLINICAL EXAMINATION OF THE ABDOMEN FOR LIVER AND BILIARY DISEASE



Insets (*Spider naevi*) From Hayes and Simpson 1995; (*Aspiration*) Strachan 2008; (*Palmar erythema*) Martin 2011 – see p. 988.

History and significance of abdominal signs

Presenting clinical features of liver disease

Presenting features of liver disease represent combined effects of:

Impairment of liver function and metabolic sequelae of this

- Jaundice (failure of bilirubin clearance)
- Encephalopathy (failure of clearance of by-products of metabolism)
- Bleeding (impaired liver synthesis of clotting factors)
- Hypoglycaemia

Ongoing presence of aetiological factors (e.g. alcohol)

- Effects of aetiological agent, e.g. intoxication, withdrawal, cognitive impairment *versus*
- Effects of liver injury from agent, e.g. encephalopathy

Effects of chronic liver injury (> 6 mths)

Catabolic status (± poor nutrition)
- Skin thinning ('paper-money skin')
- Loss of muscle bulk
- Leuconychia

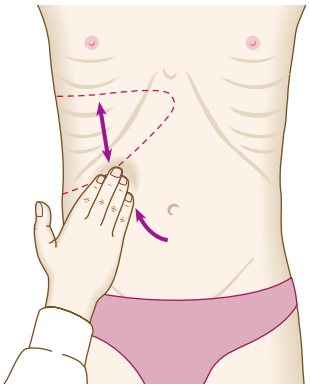
Impaired albumin synthesis
- Reduced oncotic pressure (contributes to ascites)

Reduced aldosterone clearance
- Na^+ retention (contributes to ascites)

Reduced oestrogen clearance
- Mild feminisation of males (loss of body hair, gynaecomastia)

5 Assessment of liver size

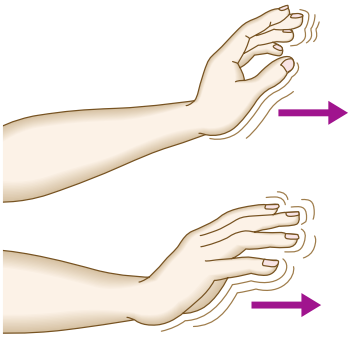
Clinical assessment of hepatomegaly is important in diagnosing liver disease.
- Start in the right iliac fossa.
- Progress up the abdomen 2 cm with each breath (through open mouth).
- Confirm the lower border of the liver by percussion.
- Detect if smooth or irregular, tender or non-tender; ascertain shape.
- Identify the upper border by percussion.



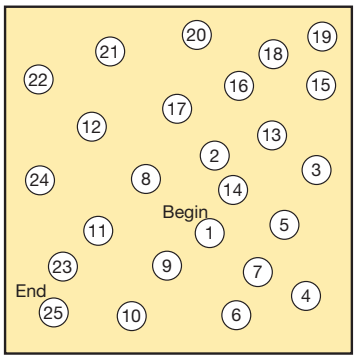
Ascites

Causes	Associated clinical findings
Exudative (high protein)	
Carcinoma	Weight loss ± hepatomegaly
Tuberculosis	Weight loss + fever
Transudative (low protein)	
Cirrhosis	Hepatomegaly Splenomegaly Spider naevi
Renal failure (including nephrotic syndrome)	Generalised oedema Peripheral oedema
Congestive heart failure	Elevated jugular venous pressure (JVP)

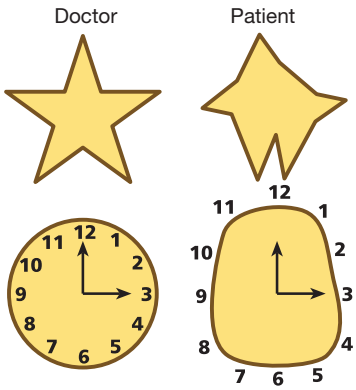
1 Assessment of encephalopathy



Flapping tremor. Jerky forward movements every 5–10 seconds when arms are outstretched and hands are dorsiflexed suggest hepatic encephalopathy. The movements are coarser than those seen in tremor.



Number connection test. These 25 numbered circles can normally be joined together within 30 seconds. Serial observations may provide useful information as long as the position of the numbers is varied to avoid the patient learning their pattern.



Constructional apraxia. Drawing stars and clocks may reveal marked abnormality.