LIVER

MAIN CATALOGUE

COMMONWEALTH OF AUSTRALIA
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CASE 3234
This was an incidental finding in a man aged 62 with calcific aortic stenosis who died after an attack of influenza.
The specimen is a slice of liver sectioned to show a 5cm diameter dark cavernous lesion with irregular edges embedded in the liver substance.
Diagnosis: Haemangioma

CASE 3452
This patient was a woman aged 27 with a 3 month history of a massive chronic pelvic abscess that originated from the left fallopian tube.
The specimen is a slice of pale liver. An infiltrate diffusely replaces much of the liver, with only small pale flecks of residual liver remaining.
Diagnosis: Amyloidosis
Comment: At postmortem the kidneys were large and pale but the iodine reaction was said to be negative. The liver was greatly enlarged and the iodine reaction was positive. Histology showed typical massive amyloid deposition between the liver cords. Many of the liver cells had atrophied.
What type of amyloid is this likely to be? As the patient has a history of chronic infection, it is likely to be secondary, reactive systemic or AA amyloid.

CASE 3616
The only information available for this old specimen is that the patient was an inmate of a mental hospital, apparently with the mental deficit of Wilson's disease.
The specimen is a small cirrhotic liver. The islands of regenerating liver cells vary in size up to almost 1cm in diameter and there is very dense intervening fibrosis.
Diagnosis: Cirrhosis
Comment: This is an example of macronodular cirrhosis.

CASE 4562
No information is available about this patient except that the postmortem was performed for the coroner.
The specimen consists of several small portions of liver, each containing a round pale firm nodule with a slightly congested well-circumscribed margin.
Comment: Histology reportedly showed that each nodule comprised a mass of granulation tissue with proliferating bile ducts and distorted capillaries. There was no evidence of necrosis and almost no inflammatory reaction. The old catalogue classified these particular lesions as gummata (as in syphilis). This diagnosis is doubtful as the histological description above does not sound typical. Some sort of neoplastic vascular lesion is another possibility.

CASE 6675
The patient was an elderly man who died of uraemia consequent upon polycystic disease of the kidneys. Each kidney was about 3 times normal size and was replaced by cysts varying in size up to 2cm in diameter. Almost no renal parenchymal tissue was evident.
The specimen is a slice of liver showing numerous simple cysts measuring up to 2cm in diameter. In areas these are clustered together beneath the capsule. The intervening liver tissue appears normal.
Diagnosis: Polycystic liver disease
Comment: Patients with adult (autosomal dominant) polycystic kidney disease can also have cysts in the liver, pancreas, spleen and lungs and they also have an increased incidence of berry aneurysms in the circle of Willis.

CASE 7137
The patient was a man aged 71 who suffered a stroke and was admitted to hospital unconscious. He died 3 days later and multiple infarcts affecting many organs were found at postmortem.
The specimen is a slice of liver showing a classic subcapsular wedge-shaped anaemic or pale infarction 6cms in diameter. There is marked vascular congestion bordering the infarct. A large area of liver surrounding the infarct appears pale and congestion resulting from chronic passive venous congestion is evident beneath the capsule at the upper portion of the specimen.
Diagnosis: Liver infarct
Comment: Infarction of the liver is uncommon due to its rich blood supply from portal veins and hepatic arteries. While this infarct is pale, some liver infarcts are haemorrhagic due to suffusion of portal venous blood.
A thrombus/embolus was reportedly found in the hepatic artery leading to the area of infarction. A source/cause of the thrombosis/embolism is not reported, though the heart could have been a source for multiple emboli with infarction.

CASE 8537
The patient was a man aged 62 who had been treated as an outpatient for 4 years for chronic liver trouble that after biopsy was thought to be cirrhosis. Six weeks before death there was an episode of severe epigastric pain with vomiting and 2 weeks later massive melaena occurred. Blood was also present in the vomitus on two occasions.
The specimen is a slice of liver. The cut surface shows tiny nodules with surrounding fibrosis and is browny yellow in colour.
Diagnosis: Haemochromatosis with cirrhosis
Comment: This is an example of micronodular cirrhosis. The lower part of the specimen has been stained with potassium ferrocyanide that in the fresh state gave an intense Prussian blue reaction. Histology showed a typical picture of cirrhosis with liver cells laden with haemosiderin pigment and interstitial fibrosis with many deeply pigmented macrophages. At postmortem the pancreas was found to be atrophic and deeply pigmented.
What is the likely cause of this man's melaena? Bleeding oesophageal varices arising as a result of portal hypertension developing secondary to cirrhosis.

CASE 9139
No clinical information is available except that the patient was a child aged 4 months who died at the Adelaide Children's Hospital in 1954.
The specimen is the liver sectioned to show much of the right lobe replaced by an ill-defined partly lobular tumour with many areas of haemorrhage and necrosis. A mass of tumour is seen filling the lumen of the hepatic vein.
Diagnosis: Hepatoblastoma
Comment: Although this diagnosis requires histological confirmation, it should certainly be considered in a young child.

CASE 10343
No clinical information is available except that this specimen is from an infant who died at the Queen Victoria Maternity Hospital in 1956.
The specimen is of an infant's liver. It is studded with small pale necrotic nodules up to 3mm in diameter, most evident in the left side.
Diagnosis: Disseminated abscesses
Comment: The abscesses presumably developed during an episode of septicaemia. Colonies of cocci were reportedly seen histologically in the abscesses.

CASE 11457
The patient was a diabetic woman aged 58 who had lived in Egypt for three years and in South Australia for 2 years. For 12 months there was progressive loss of weight with episodes of diarrhoea, abdominal swelling and pain. On admission there was marked ascites, the liver edge was palpable and there was oedema of the ankles and lower legs. Admission was precipitated by massive haematemesis. An oesophageal tube with inflatable balloon was inserted but failed to control bleeding. At postmortem there was ascites, the liver was small, and dilated veins in the lower end of the oesophagus had ruptured in two places.
The specimen consists of a portion of liver that shows a rather coarse and irregular cirrhosis, the nodules varying in size to about 6mm in diameter. A 1cm diameter round necrotic mass is seen subcapsularly at the top of the specimen. Antemortem thrombus occludes the trunk of the portal vein, at the distal end of which is a pale necrotic mass extending into large venous radicles in the substance of the liver.
Diagnosis: Cirrhosis with hepatocellular carcinoma invading portal vein
Comment: Histology showed typical cirrhosis and confirmed that the mass in the portal vein is a hepatocellular carcinoma.
May the fact that the patient lived in Egypt for a time have relevance to the pathology? If so, how?
While the cause of the cirrhosis, the timing of when the patient lived in Egypt and its relationship to the development of the cirrhosis are unknown, it is possible that it was caused by hepatitis C, which the patient acquired in Egypt where it is very common, due to re-use of poorly or unsterilised medical equipment. Another disease common in Egypt and which can cause portal hypertension, though not cirrhosis, is Shistosomiasis.

CASE 12634
The patient was a woman aged 68 who was reported to be in good health until 6 months before her death. Then tiredness and vague upper abdominal pain radiating to the back occurred. She was admitted to hospital after a massive haematemesis and melaena and died on the 3rd day from pulmonary oedema. At postmortem large oesophageal varices were present.
The specimen consists of part of a shrunken liver. Large nodules up to 1.5cm in diameter of liver cells, with dense surrounding fibrosis, are seen diffusely on the cut surface.
Diagnosis: Cirrhosis
Comment: This is an example of macronodular cirrhosis.

CASE 13489
The patient was a boy aged 12, the son of a city newsagent who had two dogs. Two years previously a cardiac murmur was apparently detected for which cardiac catheterization and ECG were done, but the records reveal little of what was found. He suddenly collapsed and died at school.
The specimen is part of the liver sectioned to show an encapsulated 10cm diameter cyst containing many thin walled free-floating 1cm diameter daughter cysts and folded opaque fibrous membranes. A smaller 3.5cm diameter encapsulated cyst containing folded membranes and inspissated pultaceous material is present adjacent to the larger cyst. The liver substance shows evidence of chronic passive venous congestion.
Diagnosis: Hydatid cysts
Comment: At postmortem a hydatid cyst 8cm in diameter was found in the posterior wall of the left ventricle bulging forward into the chambers of both ventricles.

CASE15983
The patient was a man aged 37. Sixteen months previously the onset of dyspnoea led to an x-ray and the discovery of a tumour in the left upper lung lobe. Histologically it resembled a seminoma, and because it was inoperable it was irradiated. Eleven months later he became jaundiced and the liver was irradiated over a period of 4 months ending 2 weeks before his last admission. At that time the abdomen was swollen and there was ascites. Abdominal paracentesis was performed but the patient became more deeply jaundiced

and died 3 weeks later. At postmortem there was widely disseminated poorly differentiated carcinoma that was thought to originate in the head of the pancreas.
The specimen is a slice of liver. Most of the organ shows marked chronic passive venous congestion but the right lobe is pale and relatively bloodless. Antemortem thrombus is visible in a vessel adjacent to this region.
Diagnosis and comment: In the old catalogue this case was given the diagnosis of radionecrosis of the right lobe of the liver. There is also marked chronic passive venous congestion. Another possibility to account for the pallor of part of the liver, especially given the presence of the thrombus, is an early infarct. Review of the histology (which reportedly showed zonal necrosis throughout the liver, with blood filling the sinusoids in the left lobe but not the right) would be helpful. There is no apparent tumour.

CASE 16092
The patient was a man aged 60 who suffered a myocardial infarction 2 months before death resulting in congestive cardiac failure with pulmonary oedema.
The specimen is a slice of the liver that shows the characteristic 'nutmeg' appearance of alternating dark areas of congestion around the draining hepatic or central veins and pale zones around the portal tracts.
Diagnosis: Chronic passive venous congestion

CASE 16217
This man aged 71 was first admitted to hospital almost 2 years previously with complete anorexia for one week and jaundice for several days. He had developed an aversion for fatty foods for 6 months before and there had been cough with sputum and right-sided pleuritic pain for 6 weeks. On examination there was a right pleural friction rub and tenderness beneath the right costal margin. The gallbladder did not fill on cholecystography. The barium meal was normal. He was readmitted 3 months later with an exacerbation of upper abdominal pain. Laparotomy showed a normal gallbladder but there were enlarged lymph nodes in the porta hepatis. Biopsy of a node showed iron pigment only. Eighteen months later he was readmitted with a vague story of haematemesis and melaena. The alkaline phosphatase was raised. Nodules in the liver were biopsied at operation. He died a few days later in circulatory failure.
The specimen consists of a slice of liver showing scattered coalescing pale and focally necrotic neoplastic masses throughout much of the liver substance that has invaded through the capsule into diaphragm. Invasion of a large blood vessel is present in the porta hepatis. The residual liver shows passive venous congestion.
Diagnosis: Malignant tumour
Comment: Histologically this was reportedly hepatocellular carcinoma. In western countries this would be unusual in the absence of cirrhosis, but the tumour’s multifocality and invasion of veins is in keeping with this diagnosis. At postmortem, the diaphragmatic involvement was seen to have caused a pleural effusion. The gallbladder and bile ducts were normal.

CASE 16953
The patient was a man aged 21, diabetic for 14 years, who died from cellulitis of the scalp with bilateral cavernous sinus thrombosis. The specimen was an incidental finding at postmortem.
The specimen of liver demonstrates a well-circumscribed rounded solitary pale mass 2.5cm in diameter in its substance.
Diagnosis and comment: Histologically this lesion was reportedly a liver cell adenoma. The features of a single well-circumscribed lesion suggest a benign process, however, the fibrolamellar variant of hepatocellular carcinoma and a single metastasis are also possibilities. Liver cell adenomas are rare. They have a predilection for females and are statistically related to the use of oral contraceptives and anabolic steroids. Larger ones are more likely to be symptomatic. Microscopically the tumours are composed of well-differentiated bland hepatocytes and are without portal tracts, bile ducts or central veins.

CASE 17263
The patient was a woman aged 69 known to have polycystic disease of the kidney and liver for 6 years. She was admitted in uraemia and died after 3 weeks in hospital. A small right subdural haemorrhage was found at postmortem. Both kidneys were greatly enlarged and showed the typical appearance of polycystic disease.
The specimen is of the liver that is greatly enlarged as a result of the presence of numerous cysts varying in size up to 7cm in diameter. They have a smooth lining and fibrous walls. The intervening liver substance is mildly congested but appears otherwise normal.
Diagnosis: Polycystic liver disease
Comment: Patients with adult polycystic kidney disease can also have cysts in the liver, pancreas, spleen and lungs and they also have an increased incidence of berry aneurysms in the circle of Willis.

CASE 17528
The patient was a man aged 72 who had been aphasic for a year after a stroke. For the week before his last admission he had been vague and disorientated. Examination showed right basal pneumonia and pneumococci and *Haemophilus influenzae* were grown from the sputum. Antibiotic treatment had little effect. The JVP became elevated and he died in congestive cardiac failure. The liver was of normal size and weighed 1656gm.
The specimen is a slice of liver showing the characteristic nutmeg appearance of venous congestion throughout its substance. At one edge is an old encapsulated hydatid cyst 5cm in diameter containing remnants of hydatid membrane.
Diagnosis: Chronic passive venous congestion and hydatid cyst

CASE 17564
The patient was a man aged 66. Ten years previously he had been a heavy drinker and apparently had a haematemesis. His last admission was with abdominal pain, anorexia, ascites and wasting. The stools had been pale for about 2 months. The liver was enlarged. The urine showed 3+ sugar and the serum creatinine was raised. Paracentesis abdominis was performed and thereafter the patient became febrile, gradually deteriorated and died.
The specimen consists of a slice of liver. It is golden brown in colour and shows a finely nodular cut surface, the nodules being surrounded by bands of fibrosis. On the right side is an ill-defined irregular pale mass 6cm in diameter. Several separate smaller tumour nodules are also noted.
Diagnosis: Haemochromatosis with cirrhosis and hepatocellular carcinoma
Comment: At postmortem the liver was enlarged (weight 2190gm). Metastases were present in both lungs. The pancreas was normal in size but was brown.

CASE 18779
The patient was a woman aged 74 with a history of progressive jaundice and ankle oedema for 4 weeks. The liver function tests suggested hepatitis and possible low-grade biliary obstruction. She died after several abdominal tappings of ascitic fluid.
The specimen is of a markedly shrunken liver, most notably on the left side. There are adhesions between the upper and anterior surfaces of the right lobe and the undersurface of the diaphragm. The surface of the liver is focally wrinkled. The cut surface of the right side shows extensive parenchymal necrosis with some preservation of the reticular framework. There does not appear to be cirrhosis. The gallbladder has contracted around a group of white gallstones.
Diagnosis and comment: At postmortem the liver weighed only 750gm. Histology reportedly showed small islands of surviving liver cells but in most of the section only the reticular framework survived, containing many proliferating bile ducts and chronic inflammatory cells. The changes here suggest submassive liver necrosis. Causes include Hepatitis A and B, certain drugs (e.g. paracetamol) and Wilson's disease.

CASE 18803
This patient was a woman aged 63 who had been an inmate of Parkside Mental Hospital for 5 years for Korsakoff's syndrome, with polydipsia and polyuria following a fall. The condition was apparently controlled by pitressin. She was admitted to the RAH with an 18-hour history of generalised abdominal pain and the passage of faeces stained with bright blood. Sigmoidoscopy showed no ulceration. She was treated by drip and suction but collapsed and died undiagnosed on the 2nd hospital day. At postmortem the peritoneal cavity contained 250ml of free fluid with associated fibrin flecks. There was a loculated abscess containing 85ml of creamy pus in the pelvis. There was a very large subhepatic abscess 10cm in diameter beneath the central portion of the liver containing similar pus. This abscess was continuous with other purulent collections in the subdiaphragmatic spaces on both sides. The small bowel showed no ulceration. There were small pale ulcers in the colon but no generalised mucosal congestion. There was an area of inflammation at the base of the appendix and in the caecum with a perforation of the latter.
The specimen is portion of the liver sectioned to show several unencapsulated necrotic rounded masses containing pale friable exudate, the largest measuring 8cm in diameter. One has been filled with cotton wool.
Diagnosis: Multiple abscesses
Comment: Histology reportedly showed typical amoebic abscesses containing thick pus in which amoeba were visible. Infection by the protozoan *Entamoeba histolytica*, predominant in developing countries, is acquired by the faecal-oral route. The organisms initially infect the colon, particularly caecum and ascending colon, causing a colitis and dysentery, and from there may gain access to the portal venous system and liver causing abscesses.
What may have caused the polyuria and polydipsia? The history of trauma and control by pitressin suggest that this may be trauma related diabetes insipidus due to damage to the hypothalamus.

CASE 18999
The patient was a man aged 57 who had been a very heavy drinker for at least 20 years. Two years before his last admission he had a transfusion in private and x-ray studies a year later showed oesophageal varices. His last admission followed a large haematemesis with melaena. On examination the BP was 200/170. There was bilateral parotid swelling, multiple cutaneous spider naevi, liver palms, slight hand tremor with early Dupuytren's contractures, ascites and palbable liver and spleen. He was treated with transfusion, a Sengstaken tube and oxytocin drip. He later developed epileptiform convulsions from hepatic encephalopathy. This was treated by low protein diet, oral neomycin, blood transfusions and sedation. Surgery was considered but rejected and the patient deteriorated and died 2 months after admission.
The specimen is a slice of the liver. The surface is studded by irregular small regeneration nodules measuring up to about 4mm in diameter. The cut surface shows that the regeneration nodules are generally small, and are embedded in dense fibrous tissue. Some scattered nodules are larger and scatted dark patches may represent bile staining.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis. At postmortem there was massive ascites, a small cirrhotic liver (weight 830gm) and splenomegaly (weight 550gm).

CASE 19881
This patient was a man aged 51 who was quite well until 3 weeks before admission when he developed retrosternal pain and cough. Two weeks later there was abdominal swelling with anorexia and nausea but no vomiting. Four days later ankle oedema developed and he was admitted to hospital. The liver was enlarged, firm and tender with an irregular edge. There was ascites and there were engorged veins on the anterior abdominal wall. The JVP was elevated 10cm and there were bilateral basal crepitations. Spider naevi and liver palms were present. The spleen was palpable. Many investigations indicated liver failure. Blood platelets were persistently low and platelet survival was markedly reduced. His condition gradually deteriorated and he died after a massive haematemesis.

The specimen consists of the shrunken liver. The surface is obviously cirrhotic, studded mainly with small regeneration nodules less than 3mm in diameter. There is extensive involvement of one side by an ill-defined extensively necrotic and haemorrhagic tumour. In places, areas of tumour are surrounded by fibrosis, resulting in the formation of well-circumscribed tumour nodules. The tumour has extended into a hepatic vein and the inferior vena cava where it is covered by laminated antemortem thrombus.
Diagnosis: Cirrhosis with hepatocellular carcinoma

CASE 19963
The patient was a woman aged 72, a known diabetic for 20 years maintained on 40 units of insulin twice daily. She was blind and the left leg had been amputated above the knee. She was admitted to hospital with a myocardial infarction and died in acute pulmonary oedema on the 2nd day.
The specimen consists of a portion of liver. The cut surface shows many predominantly small regenerative nodules with surrounding fibrosis. In addition there is a well-circumscribed encapsulated roughly spherical mass, 8cm in diameter, within the liver. Its cut surface is heterogenous with focal haemorrhage, fibrous bands and extensive pale necrosis.
Diagnosis: Cirrhosis with hepatocellular carcinoma
Comment: At postmortem the liver was small (1300g) and the spleen enlarged (440g). The diagnosis of hepatocellular carcinoma was confirmed histologically and invasion of veins was prominent. It is not stated whether the diagnosis of cirrhosis or malignancy was known before death.

CASE 20381
The patient was a man aged 82 with congestive cardiac failure, who was admitted with haematemesis and melaena of 3 days duration and a swinging fever. The liver was palpable 3cm below the right costal margin and there was epigastric tenderness and guarding. The ESR was 50mm and there was a leucocytosis of 33,000 with 92% neutrophils. After 5 days he developed gangrene of both heels and he died on the 8th day.
The specimen consists of a portion of liver sectioned to show a multiloculated mass measuring 10cm in maximum dimension. The cut surface of the mass demonstrates homogenous thick creamy pus. In areas there is an ill-defined fibrous capsule. The surrounding liver shows chronic passive venous congestion.
Diagnosis: Liver abscess
Comment: Histology showed an obvious abscess of some duration with a well-defined fibrous capsule. A Proteus species was cultured from the pus. Abscesses of the liver are not common. Organisms may gain access from the GIT via the portal venous system, complicating for example acute appendicitis or amoebic colitis. They may ascend via the bile ducts from the GIT in ascending cholangitis, often precipitated by impaction of a gallstone in the common bile duct. Bacterial seeding may also occur with bacteraemia and direct seeding may occur with trauma. Tuberculous 'abscesses' of the liver are being seen more commonly in immunocompromised patients e.g. AIDS.

CASE 20650
This man aged 79 had a cholecystectomy 5 months previously with good recovery. Two weeks before his last admission he developed upper abdominal pain. A choledocho-duodenostomy was performed. At the operation the pancreas was firm and there was fat necrosis in the omentum. He developed a gram-negative septicaemia with a swinging fever. Further laparotomy just before his death did not disclose any subphrenic collection.
The specimen is a slice of liver showing numerous coalescing abscesses containing thick creamy pus measuring up to 2cm in diameter throughout a large portion of the lobe. There is some evidence of fibrous capsule formation around some. The intervening liver substance is congested.
Diagnosis: Liver abscesses
Comment: At postmortem there was fibrinous peritonitis with multiple adhesions and 4 litres of fibrin-flecked straw-coloured fluid in the peritoneal cavity, suggesting leakage of the surgical anastomosis or perforation. Abscesses in the liver are not common. Organisms may ascend via the bile ducts from the GIT in ascending cholangitis, as is likely here.

CASE 21402
The patient was a woman aged 68 who was admitted with an acute abdomen. Emergency laparotomy showed generalised peritonitis arising from a ruptured paracolic abscess surrounding an area of sigmoid diverticulitis. She died 2 days later. The specimen was an incidental finding at postmortem.
The specimen of liver shows a large hydatid cyst measuring 14cm in diameter in the right lobe posteriorly. The cyst has a thick fibrous wall and contains daughter cysts and remnants of hydatid membrane. There is a second smaller cyst 4cm in diameter anteriorly in the right lobe. It contains thick inspissated exudate and hydatid membrane. The remainder of the liver appears essentially normal apart from mild congestion around the cysts.
Diagnosis: Hydatid cysts

CASE 21454
The patient was a woman aged 77, hypertensive for 25 years, who had Stokes-Adams attacks for 5 months. On her last admission there was complete heart block and an internal pacemaker was inserted. Five days later she developed gangrene of the feet and died next day. At postmortem there was evidence of chronic congestive cardiac failure and there was also femoral vein thrombosis and pulmonary embolism. The liver was slightly enlarged with a smooth surface.
The specimen is a slice of liver showing the typical nutmeg appearance of dark congested areas surrounding the draining hepatic (central) veins and paler less congested areas surrounding the portal tracts.
Diagnosis: Chronic passive venous congestion

CASE 22631
This patient was a man aged 60. Nineteen years previously he had chronic pancreatitis and a gastro-jejunostomy was performed. Three years later calculi were removed from the common bile duct and the gallbladder was removed. A year later a subphrenic abscess was drained. Thereafter he was investigated several times for fits, thought to be caused by alcohol withdrawal. Other problems included anaemia, malnutrition and malabsorption. On his last admission he had melaena and pain in the right hip. He was found to have gram-negative septicaemia and soon died.
The specimen is the liver sectioned to show a collection of cavities on the left side. They measure up to 2cm in diameter, have ragged margins and show a tendency to confluence. Encapsulation is not obvious. The rest of the liver appears somewhat oedematous.
Diagnosis: Liver abscesses
Comment: At postmortem there was chronic pancreatitis and dilatation of the pancreatic duct. There was dense fibrosis in the region of the ampulla. Stones were found in the common bile duct and in the left hepatic duct. Abscesses in the liver are not common. Organisms may ascend via the bile ducts from the GIT in ascending cholangitis, as is likely here.

CASE 22637
The patient was a man aged 44 who was admitted in hepatic failure with massive ascites, a liver flap and mild jaundice. The liver was palpable 7cm beneath the costal margin and the spleen 6cm. There was a good initial response to diuretics and salt restriction, but fever developed and continued. On the morning of his death there was a sudden massive haematemesis.
The specimen consists of part of an enlarged cirrhotic liver. The regeneration nodules are generally small but some are almost 1cm in diameter. On section some of them are bile stained and there is marked interstitial fibrosis. A 9cm diameter, pale, necrotic mass with irregular margins is present in the right lobe just lateral to the porta hepatis.
Diagnosis: Cirrhosis with hepatocellular carcinoma

CASE 23834

The patient was a man aged 61 who had a colon carcinoma treated by resection and colostomy 4 years previously. He had lost altogether 38 kilos in weight in 12 months and at his last admission he was jaundiced and wasted and the liver was greatly enlarged and tender. He died on the 3rd hospital day. At postmortem there was no evidence of recurrent malignancy in the intestines but the liver was greatly enlarged (weight 6600gm).
The specimen is a slice of liver that is almost entirely replaced by a single massive tumour with an irregular margin that is yellow in colour with paler areas of necrosis. Only a relatively thin rim of congested liver tissue survives around the periphery of the tumour.
Diagnosis: Massive secondary deposit
Comment: Histology showed adenocarcinoma. In the absence of cirrhosis, metastasis is most likely in this case.

CASE 24236
The patient was a woman aged 29 who was first admitted with a 3-month history of lassitude, abdominal distension and weight loss. The liver and spleen were grossly enlarged and scan showed almost no uptake in the right lobe of the liver. The liver was biopsied at laparotomy, at which time the gallbladder and appendix were removed and the right hepatic artery was ligated. After the operation anorexia and ascites persisted and she died 6 months later.
The specimen is a slice of liver largely replaced by large partly necrotic nodular masses with fibrous bands coursing through them. The tumour measures 26 cm across. A portion of the left lobe is not involved and shows congestion.
Diagnosis: Malignant tumour
Comment: At postmortem there was massive ascites and many metastases in both lungs. Histology reportedly showed a hepatocellular carcinoma composed of large cells with eosinophilic cytoplasm arranged in large masses. There were many tumour giant cells. In western countries, hepatocellular carcinoma would be unusual in the absence of cirrhosis. Macroscopically, in a young person and in the absence of cirrhosis, one would have to raise the possibility of this being the fibrolamellar variant.

CASE 24250
The patient was a woman aged 64 who presented with anorexia, night sweats and loss of weight. The liver was palpable 10cm below the right costal margin. The serum alkaline phosphatase, LDH and AAT levels were all markedly elevated. Liver scan showed great enlargement with multiple filling defects.
The specimen is a slice of liver that is almost totally replaced by partly confluent pale nodules varying in size up to about 3cm in diameter. Some of the nodules show pale necrosis. The small amount of intervening liver tissue is grossly congested.
Diagnosis: Metastatic carcinoma
Comment: Histology reportedly showed a small round cell carcinoma resembling small cell (oat-cell) carcinoma of the lung. However no primary tumour was found at autopsy.

CASE 24604
The patient was a man who lived alone. He was admitted to hospital after a massive stroke. The BP was 240/140. His condition improved in hospital for a week but he then developed bronchopneumonia and died. The specimen was an incidental finding at postmortem.
The specimen is a portion of liver that contains a 7cm diameter encapsulated spherical lesion in the right lobe that contains white inspissated putty-like material and collapsed degenerate hyaline hydatid membranes. The liver elsewhere appears normal.
Diagnosis: Hydatid cyst

CASE 24842
This 72-year old man had been suffering from a duodenal ulcer for 5 years. Initially he was treated conservatively but later a Polya gastrectomy was performed. An extensive carcinoma of the gastric antrum

was discovered with obvious lymph node involvement. He deteriorated steadily for 3 months and died with massive ascites and enlargement of the liver. At postmortem there was multiple metastatic seeding throughout the peritoneum with ascites. The liver weighed 4800gm.
The specimen is a slice of liver showing numerous large irregular pale coalescing masses of tumour up to 4cm in diameter showing flecks of necrosis.
Diagnosis: Metastatic carcinoma

CASE 25133
The patient was a man aged 56 who had a malignant melanoma on the left arm removed 4 years previously. On his last admission the liver scan showed multiple secondary deposits and biopsy of lymph nodes in the scapular region showed malignant melanoma. He collapsed and died suddenly after a week in hospital. At postmortem there were widespread melanotic secondaries throughout the body, including several in the cerebral and cerebellar hemispheres.
The specimen is a slice of liver that is studded with large intensely black melanotic secondary deposits up to 2.5cm in diameter.
Diagnosis: Metastatic melanoma

CASE 25236
The patient was a man aged 75 who died from a ruptured duodenal ulcer. There was a history of heavy drinking of alcohol, allegedly one bottle of whisky a day since the age of 30. He had been diabetic for 7 years. On admission he had several melaena stools and Barium meal showed oesophageal varices. He was transfused with 10 units of blood but died on the 10th hospital day. At postmortem an acute perforation of a duodenal ulcer was found, with early peritonitis.
The specimen consists of two slices of liver. The cut surface shows small irregular hyperplastic islands of liver tissue varying in size up to 3mm in diameter. There is marked intervening fibrosis. The surface of the liver (on the back of the specimen) shows the typical nodules of cirrhosis.
Diagnosis: Cirrhosis

CASE 25278
The patient was a woman aged 69 who was admitted with anorexia, vomiting and faintness. She was pale, the liver was palpable 3cm beneath the costal margin and there was pitting oedema of both ankles. She died from bilateral pulmonary emboli.
The specimen is a slice of liver. The cut surface is golden brown with patchy but extensive infiltration by pale irregular coalescing tumour with areas of necrosis. Thrombi are noted in veins. Little residual liver tissue remains but it is not obviously cirrhotic.
Diagnosis: Haemochromatosis with hepatocellular carcinoma
Comment: Liver biopsy before death had reportedly showed hepatocellular carcinoma. At postmortem the spleen was small with intense haemosiderosis histologically. The pancreas was not pigmented and gave a negative reaction to the Prussian Blue test. The liver was enlarged (weight 2215gm) and showed haemosiderosis. The patient had been given thorotrast 30 years previously during the investigation of a possible stroke and it is possible that this contributed towards the cause of the tumour.

CASE 25301
The patient was a man aged 74 with a history of duodenal ulcer in 1957, myocardial infarction in 1967, chronic lymphatic leukaemia with deep vein thrombosis in 1969 and two further episodes of myocardial ischaemia in 1973 and 1974. He was readmitted two weeks after the last episode with increasing breathlessness, ankle oedema, orthopnoea and left-sided chest pain. He was cyanosed and in marked respiratory distress and there were bilateral basal crepitations and inspiratory and expiratory wheezes in the chest. He died on the 3rd hospital day. At postmortem a further recent antero-septal infarction was found, and there was the scar of an old massive posterior infarct.
The specimen consists of slices of the liver and spleen. The spleen is enlarged and shows many tiny scattered pale nodules replacing the Malphighian bodies. A 20mm diameter old infarct is present at one end. The cut surface of the liver is pale and shows extensive diffuse infiltration by pale material.
Diagnosis: Leukaemic infiltration

CASE 25368
This man was a private patient aged 51 about whom little information is recorded.
The specimen is the sectioned liver showing a background of finely nodular cirrhosis. Much of the right lobe is occupied by confluent ill-defined small nodular masses of pale tumour. Thrombus intermixed with tumour occludes the main trunk of the portal vein.
Diagnosis: Cirrhosis with hepatocellular carcinoma

CASE 25533
The patient was a man aged 54 who died from carcinoma of the lung with multiple metastases.
The specimen consists of a vertical slice through the liver. The cut surface shows advanced chronic passive venous congestion (nutmeg liver) with alternating areas of pallor around portal tracts and darker areas of congestion around central veins. **Diagnosis:** Chronic passive venous congestion

CASE 25557
The patient was a man aged 46 who was admitted in December 1976 with haematemesis and melaena. Bleeding oesophageal varices were found and a spleno-portagram showed portal hypertension. The bleeding was controlled and he was discharged. He was readmitted in March 1977 for elective spleno-renal shunt. He progressed well after the operation, but then developed ascites that did not respond to diuretics. After a week he became severely hypotensive and died.
The specimen consists of a slice of liver. The cut surface shows it to be involved diffusely by small nodules less than 3mm in diameter with intervening fibrosis.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis.

CASE 25575
The patient was a woman aged 52 who lived in the country. Two years previously she was investigated for right-sided abdominal pain and hepatomegaly. Liver scan showed abnormalities and biopsy showed cirrhosis with fatty infiltration and an alcoholic type of hepatitis. She asserted however that she drank only 2 sherries and 1-2 glasses of beer before the evening meal and on social occasions. Six months before her death she was admitted with bleeding oesophageal varices. Then she developed ascites and peripheral oedema, which responded well to diuretics and salt restriction. Liver scan showed worsening disease, but she still denied persistent alcohol abuse. A month before admission there was marked lassitude and the haemoglobin was 83 g/L. She was transfused, but on the following day several severe haematemeses occurred and she became drowsy, confused and disorientated. She was transferred to the RAH and soon became deeply unconscious. Examination showed palmar erythema, foetor hepaticus, ascites, spider naevi on the face and chest, and distended abdominal veins. Haemoglobin 79g/L, PVC 20.8%, leucocytes 24,000. Na 151, total bilirubin 43. On the second day she had several fits and was transferred to the

Intensive Care Unit where she suffered a cardiac arrest, but was successfully resuscitated. However the varices continued to bleed and a Sengstaken tube was inserted. She died on the 6th day.
The specimen consists of a slice of liver sectioned in the coronal plane. The cut surface shows it to be involved diffusely by small nodules less than 3mm in diameter with intervening fibrosis.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis.

CASE 25603
The patient was a man aged 60 who died from carcinoma of the oesophagus with metastases in lungs, heart, kidney, adrenal and liver.
The specimen is a slice of liver showing several reasonably discrete pale tumour masses varying in size from 1-3cm in diameter, the larger nodules showing some central necrosis. The tumours have encroached upon the vasculature of the liver causing localised irregular patches of venous congestion.
Diagnosis: Metastases
Comment: Histology showed irregular masses of squamous cell carcinoma with quite dense fibrous stroma.

CASE 25637
The patient was a man aged 49 with a long history of alcoholism, together with diabetes controlled by tolbutamide and diet. On his last admission he was confused, stuporose and febrile. Brain scan was normal. He deteriorated and died 11 days after admission. A Warren shunt had been performed 2 years previously for haemorrhage from oesophageal varices.
The specimen consists of a coronal slice through the liver. The cut surface shows it to be involved diffusely by nodules predominantly less than 3mm in diameter with wide bands of intervening fibrosis. Occasional regeneration nodules are bile stained.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis.

CASE 25659
The patient was a man aged 71 who collapsed at home with a myocardial infarction. In hospital he was found to have chronic lymphatic leukaemia (leucocytes 130,000, 98% lymphocytes). Lymph nodes in the neck, axillae and groins were enlarged, and the liver and spleen were palpable. He died from bronchopneumonia.
The specimen consists of slices of the liver and spleen. The cut surface of the liver is pale. The spleen does not appear enlarged but the Malpighian bodies are prominent. A sectioned lymph node is noted at its hilum (back of specimen).
Diagnosis: Leukaemic infiltration

CASE 50093/81
The patient was a woman aged 57.
The specimen consists of a slice of liver that shows diffuse effacement of normal architecture and its replacement by numerous fairly regular nodules of less than 3mm diameter. The nodules of liver cells are separated by darker bands of fibrous tissue. The surface of the liver is finely nodular reflecting the underlying cirrhotic process.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis.

CASE 50122/81
The patient was a woman aged 64 who had congestive cardiac failure.
The specimen consists of a slice of liver that shows a classical, quite severe nutmeg pattern with alternating dark areas of congestion around central veins and intervening pale areas around portal tracts.
Diagnosis: Chronic passive venous congestion

CASE 50322/82
The patient was a woman aged 81.
The specimen is a slice of liver that shows numerous irregular rounded pale tumour nodules measuring from 5-90mm in diameter, many showing central necrosis. The tumour has interfered with the internal blood supply of the liver causing areas of congestion.
Diagnosis: Metastases

CASE 50371/82
The patient was a woman aged 59 with a history of carcinoma of the breast.
The specimen consists of a slice of liver that contains a number of round or oval, relatively well-circumscribed, pale tumour masses measuring from 5-130mm in diameter, many showing extensive paler necrosis.
Diagnosis: Metastases

CASE 50472/82B
The patient was a man aged 66 with a history of small cell carcinoma of the lung.
The specimen consists of a slice of liver that shows numerous round, well-demarcated pale tumour masses measuring from 1-60mm in diameter, several showing paler central necrosis, with the largest starting to cavitate.
Diagnosis: Metastases

CASE 50486/82
The patient was a man aged 72.
The specimen consists of a slice of enlarged liver. Its cut surface appears orange and demonstrates some fine nodularity with fibrous bands that focally completely surround nodules of hepatocytes, amounting to early cirrhosis.
Diagnosis: Steatosis and early cirrhosis
Comment: The steatosis and fibrosis were believed to be due to alcohol abuse.

CASE 50594/82
The clinical history is unknown.
The specimen is of the liver. Thrombi are present within a number of the larger hepatic vein radicles. The cut surface of the liver is mottled with pale areas intimately mixed with congested zones. The paler areas are located around the portal tracts and the congested areas are centred on central veins. The congested areas link up, producing a pattern of reversed lobulation.
Diagnosis: Chronic passive venous congestion and thrombosis of hepatic veins.
Comment: The features would be in keeping with Budd-Chiari syndrome (hepatic vein thrombosis).

CASE 11192/83
The patient was a woman aged 38. The lesion was an incidental finding at autopsy.
The specimen is a small slice of liver. Forming a subcapsular polypoid protrusion on the surface is a dark red oval lesion 40x15mm with a spongy consistency.
Diagnosis: Haemangioma

Comment: Haemangioma is the most common benign tumour of the liver. They usually remain symptomless although sequestration of platelets leading to thrombocytopaenia (when large) or rupture may occur.

CASE 50031/83
The patient was a woman aged 70.
The specimen consists of a slice of liver. The cut surface demonstrates nodules of varying size with most larger than 3mm, that are surrounded by bands of fibrous tissue.
Diagnosis: Cirrhosis
Comment: This is an example of macronodular cirrhosis.

CASE 50112/83
The patient was a woman aged 80 with a history of small cell undifferentiated carcinoma of the lung.
The specimen consists of a slice of liver. There are numerous well-demarcated spherical pale tumour masses, some showing central necrosis, scattered throughout the liver parenchyma that is congested.
Diagnosis: Metastases

CASE 9178/87
The specimen consists of a small slice of liver with a large subcapsular lesion 105x60mm attached. The lesion is mostly dark red-black in colour with a finely spongy consistency apart from patchy areas that are white in colour, probably representing old scarred infarcts.
Diagnosis: Haemangioma
Comment: Histological section confirmed the lesion to be formed of numerous vascular channels and the large white area to be the site of past infarction. This haemangioma is quite large.

CASE 50138/92
The patient was a woman aged 79.
The specimen consists of a small slice of liver with a subcapsular black lesion 5mm in diameter with irregular margins
Diagnosis: Haemangioma
Comment: The diagnosis was confirmed histologically.

CASE 26436/96
The patient was a 34 year old man in whom a solitary mass was found in the liver on CT scan. The lesion was removed surgically.
The specimen is a slice of liver that contains an oval well-circumscribed mass 70x55mm with lobulated margins. The lesion is variably grey-brown and pale with irregular areas of white fibrosis. The residual liver appears normal.
Diagnosis and comment: In a young person with the presence of scarring in the lesion and the absence of cirrhosis, one would have to consider the diagnosis of the fibrolamellar variant of hepatocellular carcinoma. This is what it was reported to be histologically.

CASE 50057/97
The patient was a 68 year old man who was involved in a motor vehicle accident where his car collided with a semi-trailer at a T-junction. He died in hospital 3 weeks later as a result of his injuries. There was a past history of hypertension, ischaemic heart disease, diabetes mellitus and alcohol abuse.
The specimen is a slice of liver that demonstrates diffuse effacement of the normal architecture that has been replaced by nodules mainly less than 3mm in diameter that are surrounded by fibrous bands.
Diagnosis: Cirrhosis
Comment: This is an example of micronodular cirrhosis.

CASE 24762/99
The patient was a 19 year old woman who underwent surgery for a liver lesion.
The specimen is a slice of liver that contains a subcapsular well-circumscribed, apparently encapsulated pale relatively homogenous oval lesion 65x45mm within which are fine stellate fibrous bands. The background liver appears normal.
Diagnosis and comment: This lesion reportedly was diagnosed as focal nodular hyperplasia on histology. Macroscopically one would also have to consider liver cell adenoma and the fibrolamellar variant of hepatocellular carcinoma as diagnoses.