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SPONTANEOUS NECROSIS OF THE GALL BLADDER

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RUPTURE of the gall bladder is not an uncommon phenomenon usually associated with gangrene following acute calculous cholecystitis. Cases have been reported following non-calculous cholecystitis (Maingot, 1957) and there are other isolated cases of rarer causes.

Case Report

A male, aged 58, presented with a history of bleeding per rectum for six months. Routine sigmoidoscopy showed a carcinoma 11 cm. from the anus, confirmed by histological examination.

On 7th January, 1964 laparotomy showed a mobile

carcinoma of the rectum with no obvious metastases. The gall bladder and other abdominal viscera were normal. A routine abdomino-perineal excision of the rectum was performed and his immediate recovery was satisfactory. On the ninth post-operative day pus was drained from his wound which had become inflamed and three days later he developed general peritonitis. Laparotomy showed a biliary peritonitis, there being about a pint of free bile in the abdomen. A large swelling was found in the right upper abdomen consisting of omentum wrapped round the gall bladder. On freeing the omentum, the gall bladder was found to be deeply bile stained and black at the fundus and there was a little bile

staining of the omentum and under surface of the liver. The common bile duct appeared normal. Cholecystectomy was performed. By the following day he had developed a purulent bronchitis and sputum retention which necessitated tracheostomy and his further course was complicated by dehiscence of the abdominal wounds and a right-sided pleural effusion. In the sixth post-operative week, while gradually improving, he developed a right-sided hemiplegia, became stuporous and died.

Necropsy revealed thrombosis of the right middle cerebral artery with softening of the appropriate area of brain, bilateral pleural effusions and pulmonary oedema. He had acute endocarditis with multiple septic infarcts of kidney and adrenal. There were multiple abscesses in the abdominal cavity; but the region of the gall bladder bed was normal and the liver also appeared normal.

Histology of the gall bladder: "the inner wall of the gall bladder is necrotic and cellular detail is not recognisable. The serosa shows hyperæmia, proliferation of connective tissue and small blood vessels and an infiltration by polymorphs and some lymphocytes and plasma cells. There is yellow bile staining of these tissues."

Discussion

The complication which caused this patient's death was necrosis of the gall bladder. The ætiology of this condition is obscure. The histological appearances do not exclude infarction of the gall bladder wall but why this should happen is not certain. Thrombosis of the cystic artery should not in itself lead to gall bladder infarction as there is a rich blood supply from the peritoneum and liver bed, although it is possible that it could cause a localised patch of gangrene (Maingot, 1957). The mechanism of the bile leakage is also obscure as the gall bladder wall was apparently intact and the gall bladder tense. It is possible that with destruction of the

mucosa the gall bladder becomes permeable to bile. Cope (1925) quoted a case of spontaneous biliary peritonitis with a tense gall bladder and postulated that a minute leak followed by partial collapse of the gall bladder with subsequent sealing of the leak occurred. Ellis (1960) quoted a case of Small's (1954) in which spontaneous biliary peritonitis was found to be due to a minute hole in the gall bladder plugged with fibrin. He also described two cases of spontaneous perforation of the gall bladder; one in a case of thrombocytopenic purpura with hæmorrhagic destruction of the gall bladder wall and another case of a small perforation with localised endarteritis in a near-by vessel.

The case described resembles, in certain respects, that of Small's (1954) except in its severity and total involvement of the gall bladder wall. This rare condition has not been previously described in a gall bladder which was known to be macroscopically normal beforehand.

Summary

A case of spontaneous necrosis of the previously normal gall bladder, complicating excision of the rectum, is described.

I am grateful to Mr. R. W. Raven under whose care this patient was, for permission to publish the case history.

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