Medical Memoranda

Gangrene of Gall Bladder due to Arterial Embolism

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From a review of the literature, gangrene of the gall bladder due to arterial embolism does not seem to have been recorded previously.

CASE REPORT

A married woman aged 66 was admitted to hospital on 16 June 1967 complaining of having had pain in the chest and shortness of breath for four hours. In 1966 a diagnosis of mitral stenosis, aortic stenosis, and aortic incompetence had been made.

On examination she was in left ventricular failure, and atrial fibrillation, mitral stenosis, aortic stenosis, and aortic incompetence

were present. There was electrocardiographic evidence of myocardial ischaemia. She was treated with diuretics, and her condition improved over the next 24 hours.

Forty-eight hours after admission she complained of nausea and right-sided abdominal pain. There were signs of peritonitis in the right iliac fossa, and subsequently these became localized to the right hypochondrium. A diagnosis of acute cholecystitis or high retrocaecal appendicitis was made, and she was treated conservatively owing to her cardiac condition. After three days there were signs of spreading peritonitis, and it was decided to perform a laparotomy.

At operation on 21 June there was heavily bile-stained free fluid in the peritoneal cavity. Bile was seeping through the wall of the gall bladder, which appeared necrotic. There were recent adhesions and evidence of acute cholecystitis in the region of Hartmann's pouch but none around the body and fundus. Routine cholecystectomy was performed.

Immediately before the operation it had been noted that the right radial pulse was absent. Two hours postoperatively the left common femoral pulse disappeared. The following day, as the left leg was pregangrenous, a left iliac embolectomy under local anaesthesia was performed through a left common femoral arteriotomy, a Fogarty catheter being used. An embolus was removed from the region of the bifurcation of the left common iliac artery. Following this the patient was treated with anticoagulants, and made an uneventful recovery. The right radial pulse returned spontaneously.

Histology.—Macroscopically, the wall of the body of the gall bladder was thin, and towards the neck there were areas of redness and hypertrophy of the mucosa. Microscopy showed patchy induration and acute cholecystitis at the neck of the gall bladder. The greater part of the wall of the body was necrotic (Fig. 1). There was recent localized thrombus in the cystic artery, but the cystic veins were notably patent (Fig. 2). The appearances were consistent with arterial embolism of the cystic artery.

COMMENT

The decision to operate on this patient was made on the evidence of spreading peritonitis. The possible diagnosis of embolism of the cystic artery was first seriously considered only after the occurrence of multiple emboli. Gangrene of the gall bladder appeared to prevent the normal processes of localization. Rusk and Neber (1938) and Fuller (1963) recorded cases of thrombosis of the cystic artery but nothing to suggest embolism. As in their cases, there was no evidence in our patient of previous disease of the gall bladder, and nothing to suggest an acute infection. There was no question of this being a torsion of the gall bladder.

We wish to thank Dr. Evan Jones, under whose care this patient was admitted, for allowing us to publish details of the case, and Dr. J. R. Tighe for pathological assistance.

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FIG. 1.—Photomicrograph illustrating ulceration of the mucosal surface, infarction of the gall-bladder wall, acute inflammation, and thrombus in the cystic artery. ($\times 29$)

FIG. 2.—Photomicrograph showing a division of the cystic artery occluded by thrombus. The main cystic artery had a similar appearance, with the cystic veins patent. ($\times 290$)