GALL-STONE IN THE GALL-BLADDER AND IN THE COMMON DUCT — OPERATION — CHOLE-CYSTOTOMY—CHOLEDOCHOTOMY—RECOVERY.

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Mrs. M., æt. 47, admitted to the Horsham Hospital May 5, 1903. Patient complains of having attacks of severe pain in the right side of the upper part of the abdomen, just below the ribs, for the past eight months. The seizures of pain have been very frequent; never goes more than a week without an attack. Has been jaundiced ever since the first attack, the jaundice deepening when the pain becomes severe, and lessening in the intervals in which there is no pain, but never disappearing. The pain always comes in the same place, just below the ribs, in front, on the right side. She vomits with the pain, and has had morphia administered frequently. Has lost a good deal of flesh. Motions are pale, sometimes quite clay-coloured; urine very dark; no itching of skin; no bleeding from any part; has shivering while pain severe, but not at any other time; no sweating.

Examination.—Patient is markedly jaundiced, and has evidently lost a good deal of weight. Liver dulness not increased. The edge of the liver can be felt just below ribs, at anterior part of right ileocostal space. About the region of the gall-bladder there is feeling of resistance on palpation, but no definite tumour; pressure here gives slight feeling of soreness.

For a fortnight, patient was kept under observation, during which time she had several attacks of pain about the gall-bladder region, requiring morphia for their relief. The jaundice kept about the same; the stools were clay-coloured, and at times distinctly greasy-looking. During this period of observation, patient was given chloride of calcium, in twenty-grain doses three times a day.

Operation was performed on May 20. Three hours before the operation, the patient was given fifteen grains of chloretone, this procedure, in my experience, being of distinct benefit in preventing or lessening the vomiting so often caused after operation by the anæsthetic. Ether was administered by Dr. Cookson, and a sandbag being placed horizontally under patient's back at the liver level, the abdomen was opened by a vertical incision through the right rectus, commencing just below the costal margin. The parietal

peritoneum was not adherent to the parts beneath. The edge of the liver was seen to project two to three inches below the margin of the ribs. The falciform ligament of the liver was unusually thick, and was cedematous. The gall-bladder had the omentum firmly adherent to its right and under surfaces, and the pyloric end of the stomach was adherent to its left surface. On freeing these adhesions, the gall-bladder was found to be small, very tense, and a stone could be felt in it. On passing the finger into the foramen of Winslow, another stone could be felt in the common bile duct, as it passed down in the edge of the lesser omentum. An exploring syringe was then inserted into the gall-bladder, and its fluid contents, consisting of almost clear mucinous fluid, were drawn off. Gauze having been packed all round it, the gall-bladder was opened. The stone felt was found in a sacculus of the gall-bladder, and not in the main cavity. The walls of the gall-bladder were very thick, and the opening of the cystic duct could not be seen, nor could a probe be passed along the duct. An attempt was then made to press the stone in the common duct on into the duodenum, but without success, though the stone moved freely up and down the duct. A large piece of gauze was passed through the foramen of Winslow into the lesser peritoneal cavity to absorb any discharge that might escape that way, and the rest of the peritoneal cavity shut off carefully with gauze packing. The forefinger of the left hand was then hooked behind the stone, and it, with the part of the common duct containing it as it lay in the free border of the lesser omentum, pressed forward. The duct was then incised longitudinally over the stone and the stone extruded through the opening so made. A quantity of clear very sticky mucus flowed away after the extrusion of the stone, but no bile. The common duct was much dilated, allowing the forefinger to pass freely up to the hepatic ducts, and also downwards towards the duodenum. No other stones could be felt. A drainage-tube with a calibre about the size of a common lead pencil was passed through the incision in the common duct upwards for two to three inches, and secured to the edge of the incision by one catgut suture. The incision in the duct was closed everywhere, except where the tube emerged, by fine sutures of chromicised catgut, passing through all the layers of the duct wall, except the mucous membrane. The drain tube was left long enough to project at the lowest part of the abdominal incision. All the gauze packing was now removed, and a thin strip

of gauze was inserted to lie alongside the drain tube, and with its inner end covering the stitches in the common duct. The opening in the gall-bladder was sutured to the lower part of the abdominal incision, just allowing enough room at the lowest part of the incision for the drain tube and gauze strip from the common duct to emerge. A small drain tube was stitched into the opening in the gall-bladder, and the remainder of the abdominal incision closed by silkwormgut stitches through all the layers of the abdominal wall. The stones were each about the size of a cherry; that from the sacculus of the gall-bladder having four small facets on it.

Bile began to escape freely from the tube in the common duct a few hours after the operation, and continued to pour away freely till the tube was removed, but no bile at any time came away from the opening in the gall-bladder. The gauze drain alongside the tube was removed three days after the operation, it being considered that by that time the tube tract would be shut in by adhesions. The catgut stitch fastening the tube in the common duct gave way on the tenth day, and the tube was then removed. While the tube was in, all the bile appeared to escape externally, as the motions kept quite white. Scarcely any bile came away externally once the tube was out, and then only during the first twenty-four hours after its removal, and once it ceased flowing externally, the motions quickly resumed their natural colour. In those cases, too, when a fair-sized bile-duct gives way into the cavity left after removal of a hydatid cyst, most or all of the bile escapes by that route, showing under what a low pressure bile is secreted, since, though the natural channel of escape is pervious, the bile escapes by the artificial opening by preference, the slight resistance in the natural passage way being a sufficient dam when there is such slight force from behind. The tract along which the tube had passed was quite closed in a few days. The opening in the gall-bladder closed down to a very small aperture, secreting a little thick, sticky mucus, and it was still open when patient left the hospital on June 24.

As the cystic duct was apparently stenotic, it probably would have been better to remove the gall-bladder at the time of operation.

After the operation, patient had no more pain, the jaundice rapidly cleared up, and she gained steadily in weight. There were no symptoms following the operation to cause any alarm. No rise of temperature, no vomiting, and no bleeding from the incision.