

OPERATIVE REMOVAL OF A TUMOR OF THE LIVER.¹

REPORT OF A CASE OF RESECTION OF THE LIVER FOR GUMMA ; CHOLECYSTECTOMY.

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THE case forming the basis for this report presents some interesting features with regard to the difficulties in arriving at a conclusion respecting the exact pathological process under observation after exploratory incision, and emphasizes how difficult it is to give a scientific and consistent prognosis in a given case until all the means to this end have been employed with care and deliberation. It also shows that an extensive portion of the liver may under certain conditions be removed without the occurrence of alarming or uncontrollable hæmorrhage; a consideration which has no doubt frequently deterred surgeons from making the attempt at enucleation of neoplasms in this situation.

History.—M. F., aged twenty-six years, married at twenty-one, has had two children with normal labor and two miscarriages at the third month, unattended with untoward occurrences. Denies absolutely any specific infection. Dr. Louis Mooney, her family physician, went very thoroughly into this question with a negative result. Has always been slender and readily fatigued, but never seriously ill. Eight months ago began to suffer from distress and some dull pain in the epigastric region; the pain and discomfort are not influenced by ingesta, nor have there been any symptoms pointing directly to the stomach. About seven months ago she noticed a small mass on the right side corresponding to the anterior edges of the eighth and ninth ribs; the mass was not at first tender nor particularly painful; however, it steadily

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increased in size; latterly the pain increased to a considerable extent, and recently has become sharp in character. Occasionally the patient vomited.

Examination, November 3, 1903.—The patient is slender, rather anæmic, but not cachectic; there is no jaundice, and, except for a slight indolent papular acne on the face, the complexion is clear; the conjunctivæ are also clear. There is no palpable enlargement of the glands and the mucous surfaces appear healthy, no tenderness over the tibiæ, in fact there is no discoverable manifestation of ileus. The facial expression is serene and does not bespeak extreme suffering. The pulse and temperature are normal, the tongue is moist and clean. She has not vomited blood at any time nor passed any per rectum. The abdomen is normal in outline, though rather flat. At the site of the anterior edges of the right eighth and ninth ribs a mass about the size of an orange is readily palpable; it is apparently continuous with the liver, is hard, tender, and evidently adherent to the anterior abdominal wall. There is no symmetrical enlargement of the liver. The percussion note over the mass is flat.

The Diagnosis.—Three things were considered,—cholelithiasis, duodenal ulcer, and neoplasm of the gall-bladder, liver, or pylorus. Regarding cholelithiasis, the pain is not paroxysmal, nor was there any history of gall-stone colic. A radiograph under exceptionally favorable conditions gave a negative result. Duodenal ulcer was excluded on the absence of hæmatemesis; also it was considered that, while a duodenal ulcer could give rise to a thickening of the pylorus and cause adhesion to the parietal peritoneum, it would probably be located lower down and would not reach the size manifest in this case. The case was believed to be one of neoplasm of either the gall-bladder or the liver tissue immediately contiguous to it, and in view of the age of the patient, the evident involvement of surrounding tissue (the peritoneum) was probably a sarcoma. Gumma, in view of the history, was not considered.

The Operation, November 10, 1903.—Nitrous oxide-ether narcosis. Under narcosis, the mass was more readily palpable, and seemed to extend towards the median line, consequently a celiotomy at the centre of the right rectus was made, and the mass found adherent to the parietal peritoneum, from which it was readily separated. The view thus obtained showed a hard

mass the size of a large orange close to the gall-bladder. There was a narrow rim of normal liver tissue between the tumor and gall-bladder, and the latter, also the biliary ducts were normal, showing that the process was not the result of extension. The peritoneal sac was packed off with gauze, the mass seized with the left hand and rapidly enucleated by bluntly tearing through the surrounding normal liver tissue with the closed scissors. The trabeculae of Glisson were clamped before division in order to control the branches of the hepatic artery. The venous hæmorrhage was considerable but not alarming, which was attributed to the fact that the larger venous trunks from the portal vein are located farther back near the transverse fissure, and in this case the field of operation involved the smaller ramifications in a portion of the organ aside and anterior to the track of the main blood-flow. Temporary tamponade with gauze saturated with hot saline solution effectually controlled the bleeding.

The gall-bladder was removed for the reason that when the mass was enucleated the thin layer of normal liver tissue separating it from the gall-bladder was also removed; this left the gall-bladder without support and a cholecystectomy was done. The cystic duct with its small artery was ligated, and the stump touched with pure carbolic acid. The wound in the liver was approximated with deep sutures of No. 2 chromic gut; a round needle of large size and full curve was used; the stitches showed no tendency to tear out. This latter measure effectually arrested the oozing from the raw surfaces of the liver wound. A drainage tube was carried down to the site of the liver wound and the superficial wound closed in the usual way. The patient reacted nicely from the operation.

At the time of the operation, the tumor was regarded as a sarcoma. The subsequent treatment of the case was that usually employed in abdominal section. Unfortunately, infection occurred in the track of the drainage tube, and the constitutional disturbances in consequence were for a time alarming. After thorough cleansing of the wound, this was arrested, and the patient made a rapid recovery.

Dr. Henry Rogers, who kindly made the microscopical examination, made a preliminary report that the tumor was probably a round-celled sarcoma; later, and after more extended examination, Dr. Rogers stated that the tumor was undoubtedly

a gumma. It is to be borne in mind that there is no history of syphilis, that the woman at the time of the operation presented no discoverable evidence of the disease, and that the clinical diagnosis during the operative procedure was sarcoma. The specimen was further submitted for examination to Professor E. K. Dunham and Dr. Harlow Brooks, of the Pathological Department of the New York University and Bellevue Hospital Medical College, both of whom regard the growth as syphilitic.

Anschuetz, in an article in the "Sammlung klinischer Vorträge," Nr. 356-7, Leipzig, 1903, issued July, 1903, says that "resection of the liver for gumma has no sense; an exploratory celiotomy and the discovery of a gumma should be followed by immediate closure of the wound and subsequent administration of mercury and potassium iodide; an opinion in which Bergman concurs." If the case here reported is indicative of the difficulties encountered in arriving at a conclusion in the matter, it would appear safer to remove the neoplasm, more especially if the removal involve no dangerous surgical proposition. Again, it is more than probable that a gumma of considerable size will not yield to constitutional treatment, and if the growth be situated near the gall-bladder and break down, very serious complications may be regarded as logical outcomes.

With regard to the results of resection of the liver for neoplasm, an analysis of ninety-six cases collected by Anschuetz shows the following:

Of the total ninety-six cases, seventy-five recovered, seventeen died from the operation. Ten were done by excision, tamponade, and compression; one died. Of seven done by thermocautery, all recovered; twenty-five done by excision and deep ligature, two died. Of six done by preliminary clamping and excision, two died. Of twenty done by intrahepatic ligature and excision, six died, and of twenty-four done by elastic ligature, six died. Of the entire number, 12½ per cent. were done for gumma; a fact showing that the admonition expressed by Anschuetz had not been regarded very frequently, probably

for the same reasons which obtained in the writer's case. Of these twelve cases, two died, four were excised, and bleeding controlled by tampon; all recovered; one excised and the liver wound closed by suture, which recovered. Seven were removed by elastic ligature, two died, and two were excised after preliminary intrahepatic ligature; both recovered. The two fatal cases were reported, one by Tricomi, in 1895, in a woman forty-five years of age, who died on the third day from collapse, and the other by Tuffier, who removed the entire left lobe of the liver for multiple gumma in a woman of middle life. The subsequent history of the case showed that no doubt the conclusion of the pathologist was correct. After three weeks from the time of the operation, convalescence did not progress as rapidly as was expected, and the patient suddenly developed an urticaria of most distressing severity. This was at first believed to be due to the disturbed intestinal function, owing to the fact that the biliary secretion had been disturbed by the cholecystectomy. No doubt this was a factor in the case, however; a mild enlargement of the inguinal glands accompanied the skin manifestations, and, as the pathological reports arrived at about this time, the patient was subjected to inunctions of 20 per cent. ointment of mercury, with the result that her general condition improved at once. The iodide of potassium was then ordered in rapidly increasing doses, and at the present time the patient's recovery is complete.