zoologist, Glauber the chemist, and Lambecius the bibliographer. He had read widely—*Purchas, His Pilgrims*, the travels of de la Martinière in the Arctic regions, Raleigh's *History of the World*, Ashmole's *Order of the Garter*, and the Duchess of Newcastle's *New Blazing World*. His father advised him to study Cicero, and not to read much of Lucretius. Quotations may be taken from it, says Sir Thomas, but otherwise I do not much recommend the reading or studying of it, there being divers impieties in it, and 'tis no credit to be punctually versed in it; it containeth the Epicurean natural philosophy.

Besides his university examination, which was a kind of disputation, Edward Browne was no doubt examined in this College for admission as a candidate in 1668, after he had been engaged in medical studies for about ten years. He took his M.D. degree at Oxford in 1667, when he had studied nine years, and in his own University in 1670. This degree was probably given on proof of study in the faculty. It was chiefly in less regulated periods and work that this course of education differed from that of a physician in our time. There were as yet no organized schools of medicine in England, and except in this College there was no thorough examination of candidates.

The study of history is most worth pursuing when the consideration of the past can be made useful to us in the present. The lesson, "*Ars longa, vita brevis*," is plain enough wherever we contemplate the attempts of men to learn and to teach medicine. Further than this, we may learn that it is only subjects thoroughly learned that are of value, and learned so that the student can feel that he has sought out things for himself, and is not resting on the dicta of a teacher.

Last, we may conclude that medicine in itself, with its essential preliminary anatomy, contains sufficient opportunities of training in every form of observation and of logical deduction from what is observed and, that for the rest, a mind which has been opened by a sound literary education is that best adapted to follow the lifelong study of medicine which is the duty of every physician. These are the conclusions to which I have been led by a study of the history of the education of physicians in London from the time of John Mirfield to that of Edward Browne, from the Middle Ages to the time when the methods of study which we now follow began to be used.

REFERENCES.

- ¹ Harley, 3745, in British Museum. ² Bishop Hall, *Epistle to Mr. Milward*.
³ MS. in British Museum, Sloane, 1797.

A CASE OF SIMPLE STRICTURE OF THE COMMON BILE DUCT TREATED BY A PLASTIC OPERATION.

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THE following are the notes of a case of fibrous stricture of the common bile duct, in which I practised with success a plastic operation upon the duct.

HISTORY.

M. S. B., aged 63, had suffered for ten to twelve years from the following symptoms: Pain across the epigastrium, rather more on the right side, of the nature of cramp, radiating at times all over the abdomen, and especially to the left costal margin, and to the back of the right shoulder blade; vomiting, which came on soon after the pain and very often gave relief to it, and jaundice, which was first noticed only eight years ago. There have been "dozens" of attacks of pain followed by vomiting and jaundice. In the end of 1902 and the early part of 1903 the jaundice did not disappear for four months; during this time there were still attacks of pain followed by a deepening of the jaundice, and occasionally slight rigors were experienced. In April, 1903, a gall stone weighing $\frac{3}{4}$ oz. was passed; it measured $1\frac{1}{2}$ in. in length, and was ovoid in shape, "like a plover's egg." After this stone passed he was quite well up to December, 1903, when there was an attack of colic followed by jaundice. Until August, 1904, he remained free from attacks; then had a very severe attack of pain followed by jaundice and vomiting. He remained jaundiced up to the time of operation. The jaundice had varied a little, being deeper after attacks of pain, but, on the whole, has become steadily deeper, and for the last six to eight weeks, during which he had several rigors, it has not lessened at all, but the colour has become progressively darker. He has lost 3 st. in weight, 1 st. in the last eight weeks.

A diagnosis of stone in the common duct was made, and operation advised.

OPERATION.

The operation was performed on December 10th, 1904. The abdomen was opened through a vertical incision over the right rectus muscle, the upper end of the cut being prolonged inwards along the costal margin to the middle line. The gall bladder was slightly adherent, its walls a little thickened, and there were many stones in its cavity. These were removed, but the gall bladder was not extirpated, in view of the conditions found in the ducts. The common duct was found dilated, forming a cyst-like swelling. It was aspirated, and 11 oz. of bile were withdrawn. The needle being removed, an incision was made into the duct, and a stone the size of a nutmeg withdrawn at once; six other stones were found in the duct. After the dilated duct had been cleared of all easily discoverable stones by a scoop, the finger was passed in the duct upwards to the bifurcation of the hepatic duct, which was also dilated. The finger was then passed downwards, but no orifice could be felt; the inside of the duct seemed smooth everywhere, and no evidence of a passage from the cyst could be discovered. The outside of the cyst was then cleaned by gauze stripping, and the common duct below was defined. It was dilated also; an incision was made into it, and after a little difficulty a probe could be passed upwards into the dilated cyst-like duct. It was clear, then, that there was a narrow stricture of the duct, and that the dilatation of the

Fig. 1.—Showing the line of incision through the stricture.

Fig. 2.—Showing the duct laid open at the point of stricture.

upper part had resulted from the obstruction. Between the two openings now made in the duct, one above and one below the stricture, an incision was made, dividing the stricture completely. Its nature was then seen. It was cicatricial, hard, indurated, and clearly the result of an old ulcer. An attempt was made to perform a plastic operation upon the duct, but it became evident that, despite the distension of the duct, it would be necessary to free the second portion of the duodenum, to "mobilize" it after the manner of Kocher. This was done, and the plastic operation was then readily performed. The stricture, which had been freely divided by a vertical incision, was now abolished by the approximation of the edges of this incision in a transverse direction. A reference to the diagrams will show how this was done. A through-and-through suture of catgut was used, threaded upon an intestinal needle. The transverse wound was not completely closed, sufficient room being left for the introduction of two rubber tubes one of which passed upwards into the dilated common duct and the other downwards towards the ampulla. Each tube was fixed with a single catgut stitch. The tubes were removed on the eleventh day. For four weeks bile in large quantities, in fact all the bile, passed through the wound. Some pancreatic juice also escaped in this way, as was shown by the digestion of the skin around the wound. In the fifth week, bile began to pass into the intestine, and in the ninth week the wound was entirely closed. The patient was sitting up in bed from the first, and was allowed to get up in the third week.

Since the operation he has been perfectly well, and a report received in September, 1905, says that he has gained $3\frac{1}{2}$ st. in weight, has returned to work, and is in all respects quite well.

REMARKS.

The course of events in this case would seem to be quite clear. In December, 1902, a stone became impacted in the common duct; in April, 1903, this stone was passed. As a result of the irritation set up by the stone in the duct an ulcer formed, and this ulcer in healing gave rise to the stricture. The subsequent dilatation of the common duct and hepatic duct behind the stricture was due to the obstruction, which was increased when stones again arrived in the duct from the gall bladder.

Acquired stricture of the common duct is rare. It follows, as a rule, upon ulceration caused by the constant fretting of the wall of the duct by a stone; other causes are said to be typhoid ulceration and syphilis. Cases are recorded by Pye-Smith,¹ Johnson,² Phillips,³ and Pennato.⁴

Fig. 3.—Suture commenced.

Fig. 4.—Suture continued.

Fig. 5.—Suture completed; an opening left for the introduction of the tubes.

Fig. 6.—Tubes introduced, operation completed; note that the lower part of the duct though small in comparison with the upper part is also dilated.

Körte⁵ records the case of a man, aged 40, who had suffered for five months from jaundice, rigors, and remittent fever. On opening the abdomen, the gall bladder was found dilated, and stones were present in the cystic duct. The hepatic and common ducts were dilated. The common duct was opened and found to contain a stone behind a very narrow stricture. The stricture was excised and an end-to-end anastomosis made between the cut ends. A drainage tube was placed in the hepatic duct, and cholecystenterostomy was performed. The patient died on the twelfth day, of haemorrhage from an ulcer on the lesser curvature of the stomach; a large vessel was found eroded. Kehr⁶ also records a case of excision of a stricture of the common duct.

The various plans of treatment that may be adopted are: Excision of the stricture and end-to-end anastomosis; excision of the stricture, closure of the lower cut end of the duct,

and implantation of the upper end into the duodenum, which is "mobilized" to make the approximation easier; excision of the stricture, closure of both ends, and cholecystenterostomy.

The case now recorded is the first in which a plastic operation has been attempted, and the success of the case would seem to warrant the adoption of this method in a future case, as one of easier accomplishment than any other.

The illustrations have been drawn for me by Miss Ethel M. Wright.

REFERENCES.

¹ *Trans. Path. Soc.*, vol. XXIV, p. 250. ² *BRITISH MEDICAL JOURNAL*, 1880, ii, p. 200. ³ *Lancet*, 1887, ii, p. 926. ⁴ *La Clinica Moderna Italiana*, 1900, No. 6. ⁵ *Beit. z. Chir. der Gallenwege*, p. 341. ⁶ *Technik d. Gallenstein-operationen*, pp. 318, 319.

A CASE OF SUPPURATIVE CHOLANGITIS FOLLOWING CHOLELITHIASIS AND CHOLECYSTITIS.*

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WITH PATHOLOGICAL NOTES ON THE CONDITION OF THE LIVER BY

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THE following case is one of somewhat unusual interest, and fortunately of comparative rarity. Suppuration in the substance of the liver is a common occurrence within the tropics, but its more usual etiology and situation in the liver tissues contrast forcibly with the etiology and situation of the suppurative process in the case I now bring to your notice.

I considered it somewhat important that I should bring this case under your notice for two reasons: First, that a knowledge of this case might possibly be of some assistance in diagnosis should a similar case be met with by you; and secondly, that possibly a prophylactic treatment in the early stage, when a diagnosis of cholecystitis or cholelithiasis has been made, might lead to a happier result than ensued in the case under consideration.

W. H. D., aged 27 years, male, was sent up from Manila to Hong Kong on October 12th, 1904, convalescent from an illness characterized by "a sharp febrile reaction, moderate jaundice, nausea, and vomiting, and by a moderate but distinct enlargement of the liver." These symptoms were detailed by Dr. Strong of Manila, who also added that no leucocytosis was present.

Past History.—The patient had resided in Manila for the past four years. During the past three months he had suffered from two similar attacks, but in neither of these attacks was the liver enlarged. He had never suffered from dysentery, but had, however, suffered from diarrhoea now and again—in fact, while in Manila there was always a tendency towards loose motions. There was no history of gall-stone colic. He had never had typhoid fever.

Present Condition.—Temperature 100.5°, pulse 60, good tension and regular. The skin is of a yellowish tinge, and there is distinct jaundice in the fornices conjunctivae and over the sclerotics. Heart sounds normal. Breath sounds somewhat impaired over the right base behind. Liver: Dullness not enlarged upwards, but there is a definite tongue-shaped protrusion of liver substance downwards under the right rectus; this protrusion extends for three fingerbreadths below the costal margin. There is marked tenderness over the fundus of the gall bladder. No calculi can be felt. Spleen: Lower edge reaches two fingerbreadths below the costal margin. It is not tender on pressure. Urine: Specific gravity 1020, reaction acid, no albumen, no sugar, bile is present to a moderate extent. Stools: There is a tenderness to looseness without actual diarrhoea, slight acholia, no calculi or sand discoverable after careful search.

Examination of Blood.—Three smears were made and stained with Leishman's stain. No malarial parasites were present. There was no leucocytosis. A provisional diagnosis of cholecystitis and cholangitis was made, and a careful examination of the stools ordered to be made daily for the presence of "sand."

Treatment.—A light non-farinaceous diet was ordered, together with rest in bed. The following drug treatment was adopted: Hydrarg. cum creta gr. iij. Nocte. Karlsbad salts 1 drachm. Mane. Also: Tinot. podophylli miv; ammon. chlor. gr. xv; acid. nitro-hydrochlor. dil. mxxv; infus. gent. co. ad 5j. T. d. s. Hot fomentations were applied constantly over the whole hepatic area.

Progress.—October 25th. Some pain over the right hypochondrium, not extending through to the back or right shoulder. There is some crepitation on deep inspiration over the right base behind; the condition of the liver remains unaltered, tenderness being slightly increased.

October 26th. Examination of the blood reveals a slight leucocytosis, the increase being confined to the polymorphonuclear corpuscles. The liver exhibits a further enlargement downwards, and is very tender on

* Read before the Hong Kong and China Branch of the British Medical Association.