THE OBSTRUCTED LIVER.*

By WILLIAM Doolin.

WITHIN the restricted circle of my own family I have had the opportunity of watching uninterruptedly three individuals through the entire course of their suffering from obstructive biliary disorder: one was submitted to operation, two were not; all three survived for many years, and each died of some malady wholly unconnected with the disorder under discussion. May one draw any conclusion from this single observation? None, I think, save the confirmatory aphorism of Mr. Grey Turner that "it should be remembered that the sort of conditions demanding operations on the biliary tract are often not mortal".

How have the other sufferers of my acquaintance fared? I have notes of 91 patients upon whom I have operated, both in hospital and in private practice. For a complete comparison, I wish I had notes of the few upon whom I did not operate; these, in hospital practice, are next to impossible to keep under one's eye, and the absence of any knowledge of their ultimate fate is an imperfection in this communication which I deeply regret.

Of the 91 cases in my notebooks, in 74 instances the pathological condition disclosed at operation was confined to the gallbladder and cystic duct. Of these I shall have little to say. They were for the most part banal cases of the conventional type familiar to all. A few exceptional cases, however, are of sufficient interest perhaps to merit passing comment.

In a lecture on "Infection and the Gallbladder" delivered to the postgraduates last June, I drew their attention to three possibilities, instances of each of which I had encountered:

(i) Stone without infection: the case of a young girl of 19 years who had a symptomless metabolic stone—the "cholesterin solitaire"—in an uninfected gallbladder, discovered in the course of an operation for a right-sided colpectosis.

(ii) Infection without stone: of this I cited two instances:

A woman of 47 years was admitted to St. Vincent's Hospital under my care in 1927, suffering from an acute empyema of the gallbladder. Ten days prior to admission she had a gumboil lanced (the tooth had not been extracted). She presented signs of acute toxic absorption, with a temperature of 104°F. and frequent rigors. As localising signs were present marked rigidity and tenderness over the gallbladder area. Operation disclosed a very engorged gallbladder with a markedly oedematous wall; the interior of the organ contained purulent bile, but no stone. Cholecystostomy was performed. Five years later, in 1932, this patient returned to hospital by reason of recurrent biliary colic. For nearly four years following on the cholecystostomy she had been symptom-free, but during the fifth postoperative year she had had four attacks of biliary colic of increasing severity. Cholecystectomy was followed by a smooth recovery, and this patient has since remained free of biliary symptoms.

A second similar case was that of a very stout woman of 44 years admitted to St. Vincent's in 1935. She was a 9-para, and had suffered from a severe pyelitis of pregnancy with her last two confinements at the Coombe Hospital. She presented the signs of an acute cholecystitis. Catheter specimens of urine showed a strong bacilluria (B. coli). The gallbladder was moderately distended, deeply engorged and with thickened walls, but contained no stone. Cholecysto-

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ecotomy was performed, with some difficulty owing to the patient's obesity. A severe postoperative pulmonary condition set in, from which the patient died five days after operation.

I will refer to the second of these patients later.

(iii) The patient presenting symptoms which clinically incriminate the gallbladder, yet on operating the gallbladder is the seat neither of infection nor yet of stone. This is the Stauungssblase, the "stasis" gallbladder, which has been studied particularly in Germany by Schmieden and in England by the late David Wilkie.

I have a very vivid recollection of one such case, many years ago, in which, having with some little difficulty persuaded the patient to submit to operation for gallstones, neither gallstones nor an inflamed gallbladder were evident. To remove such a gallbladder did not seem to me (in the then state of my ignorance) to be a justifiable procedure. A very ruffled patient left the nursing home, to continue to suffer from her "bilious attacks."

That was in 1925; I have no doubt that to-day, with our radiographic methods of more accurate diagnosis, such an operative disappointment would be scarcely likely.

How have my patients fared? Of the immediate results, I can tabulate the mortality figures as follows:

**Cases without jaundice:** 74.
- Cholecystotomy ... 1 with 0 death.
- Cholecystostomy ... 21 with 1 death within 30 days of operation.
- Cholecystectomy ... 52 with 3 deaths within 30 days of operation.

**Cases with jaundice:** 17.
- Ch'ostomy and ch'odochotomy ... 10 with 2 deaths within 30 days of operation.
- Ch'ectomy and ch'odochotomy ... 2 with 1 death within 30 days of operation.
- Ch'odochotomy alone 2 with 0 death.
- Ch'enterostomy ... 2 with 1 death within 30 days (other survived 4 years).

Exploration, nothing done ... 1 (Former cholecystostomy).

The actual primary mortality, therefore, has been:
- Cases without jaundice ... 4 per cent.
- Cases with jaundice ... 30 per cent.

(Excluding malignancy ... 25 per cent.)

Of the ultimate end-results in these cases I can speak in only a few instances. An adequate follow-up system is wholly beyond my resources, and the number of patients whose after-history is definitely known to me is too small on which to base any worthwhile conclusions. I was, however, tremendously interested in a recent paper by Mr. Saint,* one-time Surgical Registrar to Mr. Grey Turner at Newcastle-on-Tyne. He made an attempt to follow up 790 patients and successfully traced 359 of them. The main conclusions to which his investigations led him may be summarised in the following six aphorisms: