- 9. Karas, H.: Ein Fall von multilokulärer Zyste des Netzes. Virchow's Archiv f. path. Anat., 188: 138, 1907.
- Krieger, J. S., E. R. Fisher and M. R. Richards: Multiple Mesothelial Cysts of the Peritoneum. Am. J. Surg., 84: 328, 1952.
- Lord, J. W.: Multiple Peritoneal Cysts Simulating Carcinoma of the Cecum. N. Y. State J. Med., 47: 1607, 1947.
- Maximow, A.: Über das Mesothel (Deckzellen der serösen Häute) und die Zellen der serösen Exsudate. Untersuchungen an entzündetem Gewebe und an Gewebskulturen. Arch. f. exper. Zellforsch., 4: 1, 1927.
- Moynihan, B. G. A.: Mesenteric Cysts. Ann. Surg., 26: 1, 1897.
- 14. Peterson, E. W.: Mesenteric and Omental Cysts. Ann. Surg., 96: 340, 1932.

- Plaut, A.: Multiple Peritoneal Cysts and Their Histogenesis. Arch. Path., 5: 754, 1928.
- Roller, C. S.: Mesenteric Cysts. Surg., Gyn. & Obst., 60: 1128, 1935.
- 17. Stout, A. P. and M. R. Murray: Localized Pleural Mesothelioma. Investigation of Its Characteristics and Histogenesis by the Method of Tissue Culture. Arch. Path., 34: 951, 1942.
- Tedeschi, C. G. and M. M. Helpern: Free Cysts of the Peritoneal Space. Arch. Path., 56: 386, 1953.
- Warfield, J. O.: A Study of Mesenteric Cysts. Ann. Surg., 96: 329, 1932.
- 20. Young, J. S.: The Experimental Production of Metaplasia and Hyperplasia in the Serosal Endothelium, and of Hyperplasia in the Alveolar Epithelium of the Lung of the Rabbit. J. Path. and Bact., 31: 265. 1928.

Editorial . . .

Gallstones Without Clinical Symptoms

IN RECENT YEARS an increasing number and proportion of our older age population have been subjected to complete periodic physical evaluations. In the course of these examinations gallstones are frequently demonstrated. The surgeon is then asked to see the patient in consultation and advise whether or not operation should be recommended. If the patient has had symptoms of biliary tract disease there seems to be little difference of opinion amongst the members of the medical profession as to what should be done and cholecystectomy is commonly accepted. On the other hand if there have been no symptoms and the demonstration of cholelithiasis is the sole result of a complete examination then the

question assumes several facets. These involve a consideration of the risk of operation versus the risk of those conditions that the gallstones may give rise to.

As to the first, the risk of operation, it may be said that since cholecystectomy was first advocated and practiced by Langenbuck in 1880, less than 76 years ago, there has been an ever-increasing application of the surgical approach to biliary tract disease with an ever-encouraging decrease in morbidity of complications and mortality rate. We have observed in our own experience over a period of the past 24 years that the mortality rate for elective cholecystectomy in uncomplicated cholelithiasis and chronic cholecystitis is in the neighborhood

of 0.6 per cent. This figure is comparable to that reported from other hospitals where optimum facilities are provided for biliary tract surgery. It is reasonable to assume that this figure of 0.6 of 1 per cent is a reasonably accurate estimated anticipated operative risk mortality rate. As a result of studies of patients who have died following such operations it is evident that other conditions such as cardiovascular disease, diabetes, renal insufficiency and impaired liver function are responsible for about half of this mortality rate. The remainder have died because of conditions that arose from the operative procedure. It is logical to assume that the risk will be further reduced as surgical advancement is made.

Against this one must consider what conditions gallstones are commonly associated with and what they may give rise to. Mc-Callum called attention years ago to the increased incidence of cardiovascular disease, renal impairment and liver damage in patients who at autopsy were found to have biliary tract calculi regardless of whether or not there was a history that they had caused symptoms. We have observed patients, particularly in the older age group (65 years and over), with acute obstructive cholecystitis who gave no history suggestive of biliary tract disease. The complications commonly associated with

acute cholecystitis are far more frequent in this group than in those who are younger. We have also observed that the incidence of common duct stones increases at a rather constant rate each decade after 50. It is estimated from reported case reviews that carcinoma of the gallbladder is associated with cholelithiasis in about 85 per cent of instances. This highly lethal malignancy likewise increases in frequency each decade after 50. In our series of 398 patients over 65 years of age the incidence of carcinoma of the extrahepatic biliary tract was 10 per cent. Finally we are inclined to the concept advanced by Nauyn many years ago that cholelithiasis and cholecystitis together contribute to liver injury and in many patients are the cause of a slow and insidious reduction of liver function.

It is for these reasons that we believe that gallstones whether or not associated with symptoms are a hazardous possession. For the patient without specific contraindications for operation, cholecystectomy may be deliberately embarked upon and under optimal conditions accomplished with an anticipated risk that is far less than those of the complications commonly associated with gallstones in patients in the older age group.

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