

Adenomyomatosis of the Gallbladder

by

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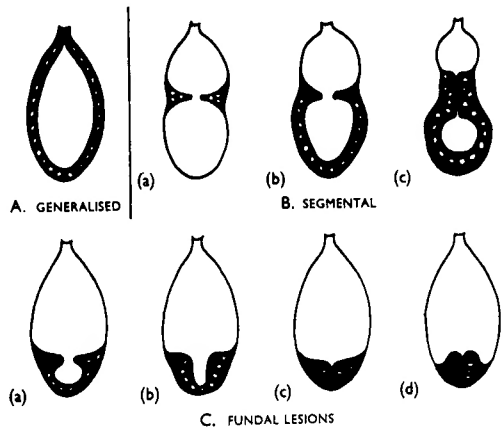
Adenomyomatosis is one of the hyperplastic cholecystoses (Table 1)¹⁾ and is characterized by hyperplasia of the muscle layer and of the mucosa. The mucosal folds are increased in number and depth and project into or through the muscle layer (ROKITANSKY-ASCHOFF sinuses).

The lesions exist in three main forms : generalized, segmental and fundal (Fig. 1)⁴⁾. Table 2¹⁾ summarizes the synonyms of adenomyomatosis.

The cholecystographic demonstration of ROKITANSKY-ASCHOFF sinuses was first described by MARCH in 1948²⁾, and since then many case reports have been presented by JUTRAS et al³⁾, COLQUHOUN¹⁾, Aguirre et al.⁵⁾, BEVAN⁶⁾ and SHAPIRO⁷⁾. The typical roentgenographic findings of adenomyomatosis is small dimpled filling defect at the fundus of the gallbladder, often accompanied by a kinking deformity of the body, or by a more generalized irregularity of the out-

Table 1. Cholecystoses¹⁾

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| 1. Adenomyomatosis |
| 2. Cholesterosis |
| 3. Neuromatosis |
| 4. Lipomatosis |
| 5. Fibromatosis |
| 6. Hyalinocalcinosis (calcified gallbladder) |



The commoner varieties of the three types of adenomyomatosis as seen in longitudinal section.

Fig. 1⁴⁾

Table 2. Adenomyomatosis¹⁾

TYPES	SYNONYMS
Diffused: generalized; segmental	Rokitansky-Aschoff sinuses (Rokitansky, 1842, Aschoff, 1905) Cholecystitis cystica (Bodnar, 1922) Cholecystitis glandularis proliferans (King and MacCallum, 1931) Intramural diverticulosis (March, 1948) Epitheliomyoma (Caroli et al., 1951) Gallbladder dysplasia (Albot et al. 1954)
Nodular: usually local- ized at fundus	Adenomyoma (Sutherland, 1898) Adenoma (Aschoff, 1905) Hamartoma (Abell, 1923) Adenofibroma (Weidinger, 1928) Cystadenoma (Kordenat, 1930) Myo-epithelial anomaly (Jones and Walker, 1957)

lines of the gallbladder caused by contrast material entering the R-A sinuses⁶⁾.

The clinical significance and management of this lesion have been a subject of controversy. Because of the frequency with which some degree of adenomyomatosis may be found in surgical specimens, as high as 33.3 per cent in 2,490 cholecystectomies (JUTRAS)³⁾, it is certain that the most lesions produce no symptoms.

When gallstones coexist with the lesions as shown in two of our cases, the therapeutic problem is simplified. In the absence of gallstone, however, many surgeons are unwilling to remove the gallbladder which has normal functions radiologically.

According to COLQUHOUN⁴⁾, adenomyomatosis alone is probably no more an indication for cholecystectomy than are uncomplicated gallstones. And operation depend on the severity of symptoms and the likelihood of complications; it should be noted that adenomyomatosis is rarely, if ever, a cause of malignancy in spite of its proliferative features.

JUTRAS et al¹⁾ have seen a sufficiently large number of seriously ill distressed persons recover immediate and lasting health after cholecystectomy.

BEVAN⁶⁾ reported the course of acalculous adenomyomatosis in 6 patients, and suggested that, even in the absence of gallstones, cholecystectomy should be advised when this condition is demonstrated radiographically in symptomatic subjects. Moreover, unsuspected presence of a carcinoma in one of his patients provided reason for caution in assuming that this condition always follow a benign course.

The course of adenomyomatosis of the gallbladder in 4 patients is described as follows.

Case 1.

Y.H., a 37-year-old man, had had epigastric discomfort after meals for several years, and recently has experienced episodes of right upper quadrant colic after fatty meals. There was no history of jaundice or fever. Physical examinations showed no abnormalities. Liver function tests were all within normal limits. A barium study of the upper gastrointestinal tract



Fig. 2



Fig. 3

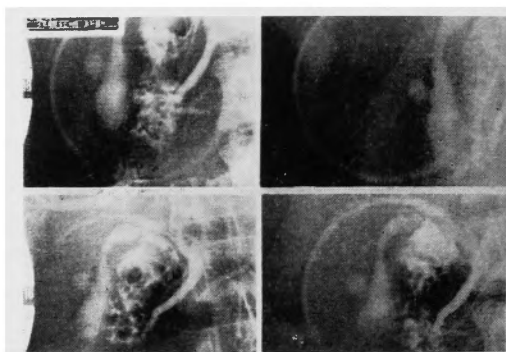


Fig. 4



Fig. 5

revealed a small scar of duodenal ulcer.

His oral cholecystogram and drip infusion cholangiogram are shown in Figs. 2 and 3, and the endoscopic cholangiogram is shown in Fig. 4.

Cholecystectomy was done on the diagnosis of diverticula of the gallbladder wall and probably sands in the organ. The wall of the gallbladder thickened remarkably and had many diverticula containing sands (Fig. 5). The histologic findings were those of adenomyomatosis (Fig. 6).

Postoperative course was uneventful and the patient lost all his symptoms.



Fig. 6



Fig. 7

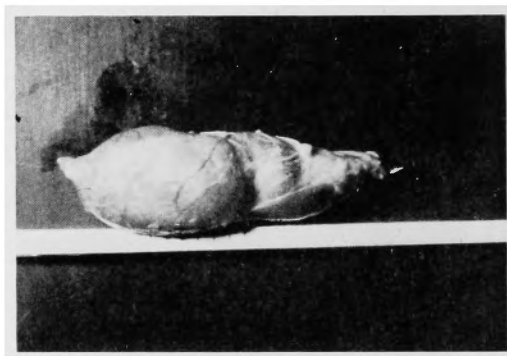


Fig. 8

Case 2.

F.O., a woman aged 50 years, complained of slight upper abdominal pain for about six months.

Physical findings were normal except for hypertension and hyperlipemia.

Her oral cholecystogram showed a fixed filling defect at the fundus. (Fig. 7).

Cholecystectomy was carried out on suspicion of a cholesterol polyp of the gallbladder wall. The gallbladder was found to contain a small button of tissue at the fundus, but no calculi (Fig.8). The histologic findings were characteristic of adenomyomatosis.

Following cholecystectomy the patient remained asymptomatic.

Case 3.

S.M., a 54-year-old woman, had experienced upper abdominal pain for four years.

A barium study of the upper gastrointestinal tract revealed a gastric ulcer, and a drip infusion cholangiography showed a deformity of the gallbladder (Fig.9).

Gastrectomy (B-I) was carried out, and a small button of tissue at the fundus was excised (Fig.10). Typical findings of adenomyomatosis were seen in histologic sections (Fig.11).

Postoperative course was uneventful and the patients has remained well.

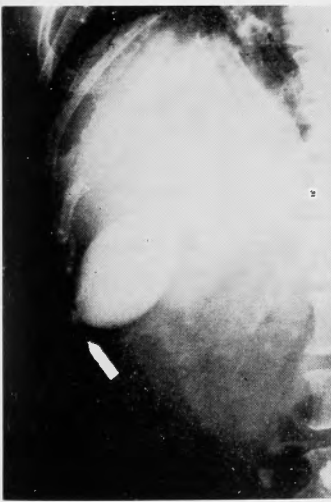


Fig. 9



Fig. 10

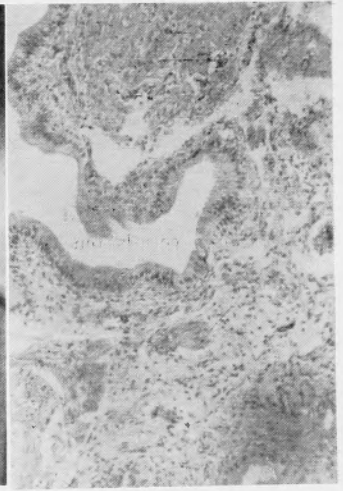


Fig. 11

Case 4.

N.H., a man of 62 years old, complained of right upper quadrant colic and recurrent episodes of jaundice for one month.

Liver function tests were as follows: Total bilirubin 1.87mg/dl, GOT 89, GPT 99 and alkaline phosphatase 41.3 K.A.U. Oral and intravenous cholangiograms were not diagnostic. Percutaneous transhepatic cholangiography revealed stones in the dilated common duct (Fig. 12).

At operation, faceted inflammatory stones were found in the dilated common duct and in the gallbladder, and the latter hypertrophied markedly and contained a small button of



Fig. 12

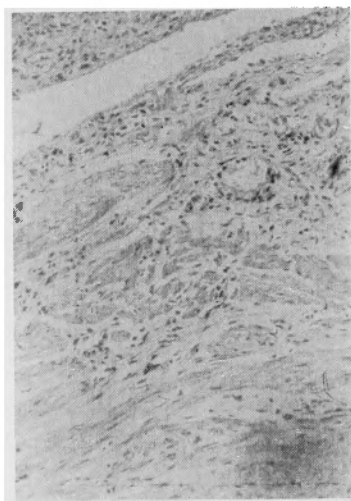


Fig. 13

tissue at the fundus. Cholecystectomy and external choledochostomy were carried out. Histologic findings of the fundus were those of adenomyomatosis (Fig. 12). Postoperative course was uneventful and the patient lost all his symptoms.

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和文抄録

胆嚢アデノミオマトーシス

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最近経験した胆嚢アデノミオマトーシス4例の概要を報告した。

胆石を伴わない本症でも症状を発し得ること、且つ胆嚢切除術により治癒させ得ること、また文献からみ

て悪性腫瘍の共存を必ずしも否定し得ないことなどから、症状を有する患者でレントゲン学的に本症を発見した時には、たとえ胆石がなくとも積極的に手術を行なうべきである。