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glistening mm. of the left 10 mm. difficulty. A quarter (Figure 1). The appendix was complicated by torsion and cyst of the appendix with early gangrene.

Figure 1.—Gangrenous mucocele of the appendix with the cecum delivered through the abdominal incision. Note the torsion of the undilated appendicular base.

Figure 2.—Longitudinal section of the surgical speci-

men, showing the contents of the mucocele.

cervix. Leukocytes numbered 15,000 per cu. mm. of blood. Results of urinalysis were within normal limits. A diagnosis of acute appendicitis was made and operation was begun three hours after admittance to the hospital.

The peritoneal cavity, entered through a low paramedian abdominal incision, contained a moderate amount of serosanguineous fluid. A deeply cyanotic sausage-shaped tumefaction of the appendix was delivered into the operative field. The tumor had undergone torsion, consisting of two complete rotations, at the junction of the undilated proximal quarter of the appendix and the dilated distal three-quarters (Figure 1). Appendectomy was accomplished without difficulty. Convalescence was uneventful and the patient left the hospital on the eighth postoperative day.

Pathologist’s report. The appendix, with a sausage-shaped tumefaction of the distal three-quarters, weighed 106 gm. The proximal undilated segment was 35 mm. long and 5 mm. in diameter and its lumen was obliterated in the distal 10 mm. Beyond the obliteration was a dilated tense mass 115 mm. long and 40 mm. in diameter. The serosa was smooth, glistening gray-purple, mottled with dark red. The mesoappendix was thickened and hemorrhagic. The leathery wall varied from 0.5 mm. to 2 mm. in thickness and contained spicules of calcification. The gelatinous content was translucent gray to opaque dull yellow (Figure 2). Upon microscopic examination of a section, the wall was observed to be composed of compact laminations of hyalinized collagen connective tissue infiltrated with occasional lymphocytes, plasma cells and neutrophilic polymorphonuclear leukocytes. There was no mucosa. Fine calcifications were imbedded along the inner surface. Compressed smooth muscle, present only on the mesoappendiceal border, was undergoing necrobiosis. Dilated veins and dense extravasations of erythrocytes were noted throughout the wall, particularly in the less compact subserosa. In the undilated proximal segment the lumen was obliterated by dense fibrous connective tissue.

Pathologic diagnosis: Mucocele of the appendix with early gangrene.

SUMMARY

A case of mucocele of the appendix complicated by torsion and consequent gangrene is reported. Two previous instances of this complication have been recorded.

REFERENCES


2. Bonnan, L. J., and Davis, J. G.: Retroperitoneal muco-


Cholezystitis and Cholelithiasis in a 16-Year-Old Boy

HENRY HIRSCH, M.D., EARL B. RAY, M.D., and MRRIS E. FREEDLAND, M.D., Bellflower

The American Medical literature contains little information on gallbladder disease in children and adolescents. Infants and children rarely have calculi in the gallbladder.1 Acute cholezystitis, when it occurs in childhood, frequently is associated with bacterial infection such as scarlet fever, typhoid fever and septicemia.1 Complications from obstruction of the gallbladder by intestinal nematodes have been reported.1 Cholelithiasis in childhood is considered by some investigators to be in most cases a complication resulting from sickle cell anemia in Negroes and from congenital hemolytic anemia in Caucasians. Reports of cases in which coexistence of cholezystis and cholelithiasis was proved by pathological examination, as in the following instance, are few.
REPORT OF A CASE

A 16-year-old Caucasian male had pain in the right upper quadrant of the abdomen that had increased in severity in the eight hours since onset. It was associated with nausea and vomiting. At first colicky, the pain had become more steady and penetrating and was referred to the lower ribs and back on the right side. In the preceding 13 years the patient had had attacks of pain in the same area, but less severe, at intervals of from one to six months. Usually they lasted a few minutes to a few hours. Physicians who had treated him from time to time were said to have ascribed the pain to "nervous spasm" of the stomach.

Upon examination it was noted that the pain was definitely localized in the right upper quadrant of the abdomen and there was some rebound tenderness. The oral temperature was 99 degrees F. Administration of 0.3 mg. of nitroglycerine brought about partial relief of pain but it was necessary to give 75.0 mg. of Demerol® for complete remission. In light of the severity of the pain the patient was hospitalized. When examination was carried out in the hospital, pain was elicited more readily in the right upper quadrant of the abdomen. Rebound tenderness was somewhat greater than before and there was tenderness over McBurney's area. Right rectus spasm and rigidity were noted, with tenderness greater on the right side of the rectus than the left. Nausea and vomiting persisted. The temperature was 98.4 degrees F. Demerol, 100 mg. every four hours, was required for relief of pain. In roentgen study of the upper gastrointestinal tract no evidence of intrinsic pathologic change in the stomach or in the duodenum was observed.

Erythrocytes numbered 4,850,000 per cu. mm. of blood and the hemoglobin content was 14.8 gm. per 100 cc. Leukocytes numbered 12,000 per cu. mm.—80 per cent segmented cells, 14 per cent lymphocytes, 5 per cent monocytes and 1 per cent eosinophils. The icteric index was 7. Erythrocyte fragility was within normal limits. No abnormalities were noted in urinalysis.

As it could not be determined whether the patient had acute gallbladder disease or appendicitis with the appendix in a high retrocecal position, the abdomen was opened in a way to make both organs accessible. A right rectus incision was made down to the peritoneum, and when the peritoneum was opened much fluid was observed. The appendix, which was slightly inflamed but not enough to cause the symptoms, was amputated. When palpated, the gallbladder was noted to be firm, distended and adherent to the liver. The operative incision was extended two inches and the gallbladder was freed from the liver and removed.

Except for rapid pulse rate and spiking temperature for several days, recovery was uneventful.

PATHOLOGIST'S REPORT

Macroscopic. The appendix, 7.5 cm. long and 0.5 cm. in diameter, was moderately inflamed and there was soft fecal material in the lumen. The mucosa was smooth and pale. The gallbladder, 8x4.5x4.5 cm., had a constricting band part way around it about 2.5 cm. from the proximal end. The mucosa was mottled with patches of red, green and gray and there were reddened fibrous tags on the surface. The lumen was distended and contained very thick dark green bile, a large number of irregularly shaped small dark green calculi and considerable mucus. The wall, mottled like the mucosa, was thick and edematous. Upon examination of the sectioned surface an annular zone of thickening with tough and rather densely fibrous tissue was noted in the region of the constriction previously mentioned.

Microscopic. Much fat and fibrous tissue was observed in the submucosa of the appendix and there were large groups of lymphocytes throughout the wall and fairly numerous eosinophils in the muscularis and serosa. Hemorrhagic necrosis was noted in much of the mucosa of the gallbladder and in the adjoining muscular coat, with extensive infiltration of neutrophils, eosinophils, histiocytes, and lymphocytes. In a portion of the liver adherent to the gallbladder there was extensive interstitial infiltration of lymphocytes. Histiocytes and eosinophils were present in smaller number. There was much necrosis of liver cells, and bile pigment was noted in liver cells, phagocytes and bile capillaries.

Pathologic diagnosis: Healing (subacute) appendicitis; acute and chronic cholecystitis; cholelithiasis; subacute hepatitis with zone of parenchymatous degeneration.

SUMMARY

A case of cholecystitis with cholelithiasis in a 16-year-old Caucasian male is presented. Since it does occur in children, although rarely, it is important to consider gallbladder disease in differential diagnosis when dealing with acute disease of the abdomen in a patient in this age group.


REFERENCE


Tuberculous Lymphadenitis, Allergic Vasculitis and Phlyctenulosis

Report of a Case

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VASCUITIS as a manifestation of hypersensitivity to the tubercle bacillus is well known. Erythema nodosum and erythema induratum are generally considered to be vascular hypersensitive reactions that are sometimes due to tuberculosis. Gilrane and Cherry1 recently pointed out the histologic similarity of polyarteritis nodosa and erythema nodosum. Both are basically vasculitis and both are probably hypersensitive reactions, but erythema nodosum is known to be frequently a hypersensitive reaction to tuberculosis. In a given case, whether or not the allergic vasculitis is due to tuberculosis is important, for evidence is accumulating2 that corticotropin (ACTH) and cortisone are sometimes harmful to patients with tuberculosis, whereas these hormones are effective in the treatment of periarteritis nodosa.

The clinical appearance of phlyctenular keratoconjunctivitis is characteristic and easily recognized. Phlyctenulosis is almost always an allergic manifestation of tuberculosis.2,3

Following is a report of a case considered one of periarteritis nodosa for 18 months because of the clinical and histologic manifestations, and in which corticotropin therapy was given, until the appearance of phlyctenules uncovered the etiologic agent of the allergic vasculitis.

REPORT OF A CASE

The patient, an 18-year-old boy, a native of Guam, first noted pain and swelling in the feet and ankles in March 1951. In June 1951, he was treated with sulfisoxazole at Tripler General Hospital for one month. In September 1951 he again noted gradual onset of pain in the ankles. This

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Presented before the Ophthalmology Section of the San Francisco Medical Society, November 4, 1952.