

## Clinical Memoranda

### Strangulated Inguinal Hernia in a Child of 5 Weeks

Strangulated inguinal hernia is one of the more common surgical emergencies, but it is in babies that strangulation of a congenital hernia is very rare, and it is for that reason that I should like to record the following case.

#### CASE REPORT

Terrance, aged 5 weeks, was the third child of a normal mother aged 26, the first child being stillborn and the second a healthy girl. He was a breech delivery, and the mother said that a foot was delivered first; but it does not seem to have been a case of prolapsed leg, as an anaesthetic was not given.

The patient and his mother were admitted to Guy's Hospital under Mr. Bromley at noon on August 21. He had had no previous illnesses, but at birth his mother had noticed a lump in his right groin which disappeared after a week. At 5 p.m. on the day before admission the child began to scream, and the mother decided to feed it; she found it would not drink—it had always been breast-fed—and she noticed that the lump which had been present at birth had reappeared. She took the child to her doctor, who gave it some sedative mixture, and it was then quiet until 3 a.m. the following day, when it began to get more pain, in which it drew up the right leg and vomited. The bowels had not been opened since 2 o'clock the previous afternoon, but there had been no trouble with micturition.

On admission the child was very shocked, but did not look wasted or dehydrated; it was getting attacks of colic in which both legs were drawn up, and it was screaming continuously. It was vomiting bile-stained matter. On examination there was a lump in the right inguinal region which was red, tender, tense, irreducible, and which gave no impulse when the child cried; the right testis was absent. The abdomen was distended with visible coils of gut, but there was no visible peristalsis; it was resonant to percussion, and on auscultation increased intestinal sounds were heard. There were no faeces in the rectum.

A diagnosis of strangulated inguinal hernia was made, although in view of the rarity of the condition at that age, and the fact that the right testis was not present, a torsion of the testis was considered.

At operation, under a local anaesthetic (0.5% procaine), the inguinal canal was opened and the absence of the testis confirmed. A very tense hernial sac was found; this was opened and was seen to contain about eight inches of blue ileum, one inch of which was plum-coloured and showed petechial haemorrhages on its surface. At first mesenteric pulsation was not palpable, but after wrapping the gut in hot towels for about ten minutes a weak pulsation returned. A tough constriction at the internal inguinal ring was divided, but at that stage of the operation the child began to cry and a general anaesthetic of ethyl chloride and ether was given to enable the intestines to be returned to the peritoneal cavity. No gut resection was attempted, as this procedure in infants has a mortality rate of 100%, and no repair operation was performed to strengthen the inguinal canal.

The child was given 20 oz. of saline by a subcutaneous drip during the first twelve hours following the operation, and then had a breast-feed. As it did not vomit, these feeds were repeated three-hourly, and eighteen hours after the operation the child passed a motion with some altered blood.

The patient continued to feed normally, began to pass the motions as it always had done, and was discharged fit after six days. The wound had become infected owing to its site in the groin, but it was felt that the child would be less likely to run the risk of an intercurrent infection if nursed at home.

My thanks are due to Mr. Bromley for allowing me to publish the details of this case.

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## Reviews

### DISEASES OF THE BILIARY TRACT

*Diagnosis and Management of Diseases of the Biliary Tract.* By R. Franklin Carter, B.S., M.D., F.A.C.S., Carl H. Greene, Ph.B., M.D., F.A.C.P., and John Russell Twiss, M.D., F.A.C.P. (Pp. 432; 84 figures; 6 plates. 32s. 6d.) London: Baillière, Tindall and Cox. 1939.

In a volume of 400 pages the authors have collected and analysed the experience and results of the past ten years of management of a separate clinic in New York for the study of diseases of the biliary tract. Their purpose in the book is to present modern concepts of the basic factors in gall-bladder disease and to describe the methods of investigation which will enable a decision to be made whether surgical or medical treatment should be carried out in the individual case. Chapters on the physiology of the biliary tract, enlargement of the gall-bladder, pain of biliary colic, gall-stones, and jaundice are followed by the approved methods of investigating hepatic function. The technique of duodenal drainage and details of the examination of the fluids obtained, both chemical and bacteriological, are clearly described, with special chapters on the relation of the colon and typhoid bacilli to gall-bladder disease. The authors incline to the metabolic cause of gall-stones, finding that infection follows and does not precede their formation. Hence efforts by medical means to eliminate from the biliary tract the results of infecting organisms are disappointing, but the tendency to reduce the number of operations in chronic cholecystitis without stones is increasing rapidly.

"Generally speaking, the most satisfactory results have been obtained by cholecystectomy in the treatment of typhoid carriers, the obliterated or encysted gall-bladder, in chronic cholecystitis with cholelithiasis, and in obstruction of the common duct. In the absence of stones, any gall-bladder capable of concentrating and emptying bile is considered in the clinic to be worthy of a thorough trial period of medical treatment."

The medical management consists of (1) a diet low in fats, cholesterol, and roughage, with abundant carbohydrates and fluids; (2) medicaments of various sorts—olive oil to stimulate contraction of the gall-bladder, bile salts to stimulate the secretion of bile by the liver—and measures directed to the relief of intestinal stasis such as the sulphates of alkalis and alkaline earths—the basis of the renown of many spas for the treatment of liver trouble; (3) vaccines from bile or any suspicious location of focal infection such as nose, throat, teeth, tonsils, sinuses, pelvic organs, or stools. The doses recommended are of 20 to 50 millions twice a week, very slowly increasing the amount. Systemic reactions are assiduously avoided, and the vaccine treatment is continued for at least three or four months. Special measures are adopted for hypotonic gall-bladder with hypochlorhydria and for hypertonic gall-bladder with gastric hyperacidity. A number of diets with low cholesterol and low fat content are quoted, and alternatively "stimulating" diets with high fats. As direct antiseptics for the gall-bladder contents there is some evidence of the efficacy of the sulphonamides.

Unless clinical improvement results from medical treatment within six to eight weeks, the original diagnosis must be reviewed or a change in medical treatment made. The patients are no longer referred for cholecystectomy unless there are clear indications for surgery. Dyskinesia is to be differentiated from non-calculous cholecystitis. Cholelithiasis is a greater indication for operation. The authors discuss in full the results obtained in various groups of