but it was not until the ninth day after the onset of symptoms that the urine became normal. No casts were ever found. By that time the ulcers had all healed. The white cell count returned to normal, and the faeces no longer contained blood. The blood urea was 16 mg./100 ml.

Investigations.—After the initial clinical examination of the child, search was made in the family compound for the remains of the beetle that the child had torn apart: fortunately, these were all found. They were dispatched (by air) together with whole live specimens of beetles with the same, and with different, markings to the British Museum, Natural History, where they were kindly identified by Miss C. M. F. von Hayek, Senior Scientific Officer. The dismembered beetle was *Mylabris bifasciata* De G., and the others were *Mylabris trifasciata* Thunberg (Coleoptera, Meloidae).

All Meloidae are said to contain cantharidin, which is present in the haemocoel as well as in the elytra and genitalia and joint fluid (Craig and Faust, 1951; Patton and Evans, 1929). According to Gordon (1943), South African Meloidae contain more cantharidin weight for weight than does the "Spanish fly."

Our personal observations are in accord with generally reported findings that the number of such beetles varies within wide limits: sometimes none can be found; at other times they are very numerous. January is in the dry season here, with the dust-laden harmattan blowing from the north.

COMMENT

Noteworthy features of the incident are: (1) The brief interval between the handling of the fragmented beetle and the onset of symptoms: pain occurred at once, and the first blebs appeared within 30 minutes; (2) the toxic principle seems to have been absorbed through the intact skin and labial mucosa; it is improbable that any part of the beetle was actually swallowed; the absence of symptoms of gastric irritation and of altered blood in the faeces suggests that the erythrocytes present indicate a toxic action during elimination of the cantharidin into the lower bowel; (3) the absence of symptoms in the children who handled intact live beetles; (4) the localized manifestations of cantharidin irritation in the mother's skin, presumably mediated by deposits on the child's fingers; (5) the severity and long duration of the strangury and haematuria after percutaneous absorption of a necessarily small amount of toxin; (6) the persistence of the haematuria despite adequate alkalinization of the urine; (7) the complete recovery of the child.

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A Technique for Operative Cholangiography

Operative cholangiography is a valuable adjunct to biliary surgery. Its acceptance as a routine operative investigation depends upon the technique being simple, with the minimum of additional manoeuvres, and not time-consuming. The following technique has been evolved and used in 23 consecutive cases with production of good x-ray plates and the avoidance of an unnecessary exploration of the common bile-duct.

The removing and replacing of towel clips during the filming can be avoided by stitching the towels together with a linen thread on a Colt needle, and stitching the tetracloths to the peritoneum and transversus abdominis muscle in a similar manner.

A bulb ureteric catheter, which has been cut down to about 12 in. (30 cm.) in length, is connected to a 10-ml. syringe with a blunt needle which fits snugly (see Fig.).

Bulb ureteric catheter and syringe.

Air is expelled from the catheter by pushing a few drops of the "hypaque" through the catheter before it is brought near the operation site. The common and hepatic bile-ducts are defined and the cystic duct is made taut by traction on the gall-bladder. A suture is placed around the cystic duct and a small slit made in its side with scissors approximately half-way along its length. The bulb end of the catheter is then introduced into this slit and eased into the common bile-duct. The suture is then tied tightly around the catheter over the cystic duct. The ends of the suture are left long but are not clipped. The catheter is then withdrawn slowly until the bulb portion impinges against the ligature and thus fits tightly with no fear of the catheter being pulled out accidentally during the removal of the retractors, swabs, and the assistant's hand prior to injection. Ideally, the table is tilted through 15 degrees to the right to ensure that the bile-ducts are not superimposed over the vertebral column on the film; if the table does not have a lateral tilt the x-ray tube should be placed at an angle of 15 degrees to overcome this superimposition. Bile is withdrawn into the syringe to ensure that no air bubbles have been introduced into either the catheter or the ducts. Approximately 7 ml. of hypaque is then injected slowly and the film taken. While the film is being developed the appendix can be removed without fear of the catheter slipping out, as further films may on rare occasions be required.

To remove the catheter, a second suture is placed around the cystic duct, between the first ligature and the junction of the cystic and common hepatic ducts, but it is not tied. The ligature retaining the catheter is cut with a small knife. The catheter and the cut ligature are removed and the new suture is tied around the cystic duct between the "slit" and the common duct.

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