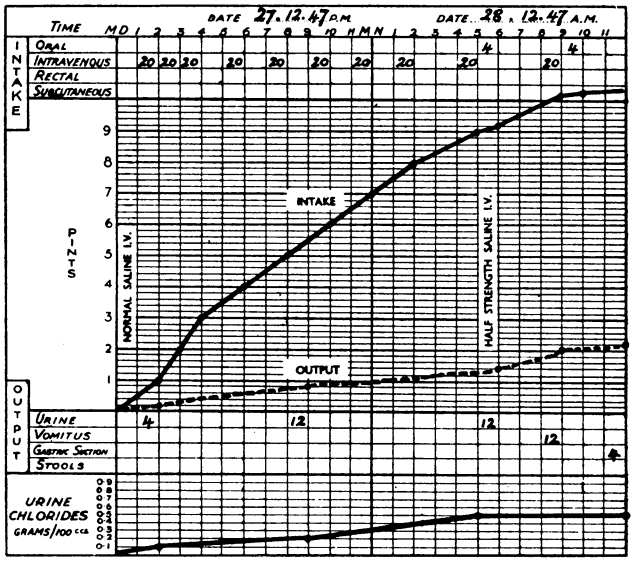
Medical Memoranda

Salt and Water Depletion in Surgical Practice

At the time of publication of Dr. Marriott's excellent article on the physiology and pathology of water and salt balance (*Journal*, 1947, **1**, 245, 285, 328) attempts were being made in this hospital to reorganize the methods of dealing with this problem. The opportunity was taken of putting all Dr. Marriott's recommendations into practice, including the quantitative ward test for urinary chlorides which he suggested. Enough time has now elapsed to evaluate the results; the tests have been an unqualified success. All patients who are, or have been, vomiting severely, or who are having gastric suction, are given intravenous normal saline so long as the vomiting or suction continues, or until the urinary chlorides reach the level of 0.5 g.%, at which time a change is made to half-normal saline, rendered isotonic with glucose. A third solution is in use for infants, consisting of quarter-normal saline rendered isotonic with glucose. We found that the quantitative ward test can easily be carried out by a sister or staff nurse. It may be of interest to note that faeculent, and even faecal, vomiting seems no longer to be "a sign of impending death" in many cases if intelligent intravenous therapy is carried out.



It was realized from this reorganization that the fluid charts in use at that time were not satisfactory, and consequently a new chart was evolved. As this may be of interest to others, a copy of the chart which was used over a period of twenty-four hours in a case of acute jejunal obstruction is included. Its use is best explained by these instructions, which are posted in the ward for the information of nurses:

USE OF INTAKE AND OUTPUT CHARTS

1. The chart is to be kept with the patient's notes and other charts.

2. All measurements should be recorded *on the chart* at the time of making them. It will be seen that there are spaces provided against the various methods of intake and output, and *hourly totals* (giving figures to the nearest 4 fl. oz.) should be recorded in them.

3. Each chart ends at noon, and so it is desirable that all measurements are recorded up to date then. In other words, where possible, bladders should be emptied, vomits measured, and gastric suction bottles emptied and measured, and the measurements recorded.

4. Intravenous, subcutaneous, and rectal drips should be recorded when each bottle is empty.

5. In dehydrated patients—those having normal saline—all specimens of urine should be tested quantitatively for chloride, and the result recorded. Otherwise a daily record only is required.

6. The graph, which is a summation of the nurse's records, should be made up by the sister or senior nurse only.

The sister or senior nurse constructs the two graphs (intake and output) by the addition of figures already entered by the nurses. The urine chloride graph needs no explanation.

D. T. H. PAINE, M.B., B.S., F.R.C.S.Eng.
Resident Surgical Officer.
D. R. DUFF, M.R.C.S., L.R.C.P.,
House-surgeon.
Department of Surgery,
Victoria Hospital, Blackpool.

A Case of Polyorchidism

Spermatoceles, cysts of the cord, and other scrotal swellings are apt to be mistaken for an extra testicle, but, actually, cases of polyorchidism proved by operation or necropsy are extremely rare, and Boggon (1933) in an interesting article described what he said was the twelfth case on record. The following case is therefore considered unusual enough to be worth publication.

CASE REPORT

The patient was a German physician aged 50 who came concerning a swelling in the right side of his scrotum and double herniae. In 1940 he noticed a swelling in his right groin which he knew to be a hernia. It was easily reducible, and he began to use a truss. Soon he observed that the right testicle was enlarged, and he attributed this to pressure of the truss. In 1947 he found a small hernia on the left side and began to wear a double truss. On Feb. 22, 1948, he found for the first time a new swelling in the right side of his scrotum and, fearing that this might be a malignant tumour of some kind, he sought advice. His past and family history did not have any bearing on the case.

Physical examination and routine laboratory tests did not show any evidence of other disease. He was seen to have bilateral direct inguinal herniae, small in size. The left testicle and cord appeared normal. The right testicle was four times as big as the left and was translucent. Just above the right testicle and apparently attached to the cord was a smooth oval swelling the size of a small hen's egg. It was not attached to the skin and was opaque on transillumination. There was no tenderness on pressure. The cord on both sides felt normal. Rectal examination showed a moderately enlarged prostate but no abnormality of the seminal vesicles.

The nature of the lump above the right testicle was not clear. It was thought to be a haematoma of the cord due to some trauma, a lipoma of the cord, or, possibly, a malignant tumour. A long list of all the possibilities was written down, but the list did not include what the lump turned out to be. Because of the possibility of malignancy, exploration was suggested. The patient readily agreed, and requested that the hydrocele and the herniae be dealt with at the same time.

Operation.—On Feb. 28, under spinal analgesia, an incision was made over the right inguinal canal, the cord drawn upon, and the testicle delivered. The hydrocele was dealt with by excision of the sac, and the lump above the testicle was then examined. It was smooth in outline and readily dissected from the cord, to which it was but lightly adherent. Soon it became apparent that it had a cord and a vas deferens of its own, and