CHOLECYSTOGRAPHY BY THE ORAL METHOD WITHOUT THE USE OF CAPSULES.

WITH A REPORT ON FORTY CASES.

BY

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OWING to the objection which many surgeons still have to the use of tetraiodophenolphthalein intravenously, it is often necessary to administer the salt by the mouth. Much has been written on this subject, and various methods have been devised to allow capsules containing the salt to pass through the stomach with their outer coats intact. In this hospital, as in others, results were good with the aid of capsules which had been freshly coated with keratin, but after a short period of storage the capsules passed through the bowel undissolved. Realizing that this is a great disadvantage, especially in the smaller hospitals, or in private practice, where not many cases are examined, an attempt was made to dispense with the use of capsules altogether.

Sproull¹ examined a series of 23 cases, giving the salt mixed with cream of wheat, and this method was tried here in several cases. Whether the wrong patients were selected, or the wrong method of cooking the cream of wheat was employed, is not clear, but, at any rate, all the patients (five) on whom this method was tried developed sickness, and one had headache. An alternative vehicle was therefore sought for, and on the suggestion of Mr. Adamson, pharmacist to this hospital, the salt (grains v per 10 lb. body weight) was first mixed with white of egg before being added to the cooked cream of wheat (about 4 ounces). The idea underlying this was to fix, or partially fix, the salt until it should have passed through the pylorus, and, whether or not this effect was produced, the method has been satisfactory, as is shown by the following table and by the operative findings.

	Normal.	Patho- logical.
Number of cases where no unpleasant effects were produced	18	13
Number of cases where unpleasant effects were produced	7	2

The unpleasant effects produced were as follows: headache (1), nausea (5 cases, of which 3 were slight, and were due to the appearance of the mixture, which is certainly an objectionable feature of the method), diarrhoea (2 cases, one of which proved later to be a carcinoma of the caecum), and vomiting (one case, in which similar attacks had previously occurred, "but not so severe"; vomiting ceased after the administration of sodii bicarb. gr. xx, liq. morph. hydrochlor. $m \times$, aq. ad ss.).

It is no longer necessary to attempt to demonstrate the value of Graham's test, but the following figures show that this method of administering the salt is satisfactory. Of the "pathological" cases 12 have been operated on up to date, and 11 were definitely abnormal. The remaining case showed an apparently normal gall bladder; the report on this case was "doubtful pathological—gall bladder appears to throw a faint shadow." Three of the "normal" gall bladders were examined at operation, and were normal, at least to palpation and to the naked eye. In several cases the test was repeated, owing to the large amount of free salt which was present in the bowel, but in each of these cases the finding was the same at the second as at the first examination.

No attempt has been made to reproduce films of gall bladders; this has been done too often already, but the density of the gall-bladder shadow in this method was as intense as that obtained in any other oral method which has been employed here.

The cases examined were nearly all out-patients, and the address of the patient was noted on the first attendance at the x-ray department. Later, the following form, which

explains the technique employed, was sent, examination being arranged on a day to suit the convenience of the department, and the form being sent five or six days before the day of examination.

SPECIAL X-RAY EXAMINATION.

Instructions to the Patient.

- (1) Take a dose of castor oil on.....night.
- (2) Attend at the dispensary of hospital on.....between 2.30 and 4 p.m. If desired a messenger may be sent—personal attendance is not necessary.
- (3) Take the material provided by the dispenser at 9.30 that night, as instructed.
- (4) Take nothing but water after this.
- (5) Attend at x-ray department at 9.30 a.m. on....., having taken *nothing but water* since taking the special meal.
- (6) Still having taken *nothing but water*, attend at the x-ray department again at 2.30 the same afternoon.
- (7) Have a meal, with as much fat in it as possible.
- (8) Attend for final x-ray examination at 4.30 p.m.
- (9) Report to the doctor who attends you in out-patient department on his next day for seeing patients.

The blank spaces are filled with the names of three consecutive days—for example, Monday, Tuesday, and Wednesday, if the examination is fixed for Wednesday.

I am indebted to the physicians and surgeons of Salford Royal Hospital for so kindly helping by providing cases, and for their useful suggestions at various times. I am also indebted to Drs. Bythell and Higgins for permission to publish these cases.

REFERENCE.

- ¹ *Amer. Journ. Roentgenol.*, March, 1927.

THE OPERATION OF EVERSION OF THE SAC FOR HYDROCELE.

BY

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It has always been a puzzle to me why the simple and efficient operation of eversion of the sac for hydrocele is not practised more frequently in England. Of all operations for hydrocele it is perhaps the easiest, and achieves its object with least disturbance of tissue. It is, I think, much preferable to Bergmann's operation of excision of the sac, which, apart from the element of time involved, entails much stripping of tissue and tying of vessels, and is fairly frequently followed by post-operative haematoma; whereas eversion of the sac may easily be done within five minutes (I have often done it in two) and without tying a single vessel, the only buried suture being that holding together the edges of the everted sac.

One objection frequently urged against eversion is that it is apt to be followed by recurrence; but this need never be if the operation is correctly performed.

I do the operation under local anaesthesia as follows: An injection of morphine is given half an hour beforehand. The inguino-scrotal fold is seized with the fingers of the left hand and the cord imprisoned; into the substance of the cord 5 c.cm. of a 1 per cent. novocain-adrenaline solution is injected. This renders the testicle insensitive to manipulation. The assistant now grasps the tumour with both hands, gathering up the loose scrotum beneath, in such a way as to make it protuberant and tense. Along the line of the proposed scrotal incision 10 to 20 c.cm. of a 1/2 per cent. novocain-adrenaline solution is injected. (I prefer the scrotal to the inguinal incision, as there are few or no vessels to tie, and access is direct to the best part of the sac to incise.) An incision 2 to 3 inches long is now made over the tense tumour, and deepened layer by layer along the full length of the cut until the translucent sac becomes evident. Lane's forceps are clipped on to the edges of the scrotal wound on each side. The point of the knife is plunged into an avascular part of the tunica and the fluid evacuated into a tray, but the blade is not removed from the rent until the cut edges are secured with forceps, otherwise their retraction makes them difficult to define. The assistant now releases his hold of the scrotum and takes up one of the forceps on the tunica, the surgeon the other.