Medical Memoranda

Enormous Intra-abdominal Hydrocele

In the Lango district of Uganda hydroceles are common and reach very much larger dimensions than at home. In this station hospital we operate on six to eight a week, averaging 1 to 2 pints (0.57 to 1.14 l.). We recently dealt with one of such unusual interest with regard to its anatomical relations rather than its enormous size that it seems worthy of publication.

CASE REPORT

An old African reported at a dispensary because he had had a swelling in the right side of his scrotum for some years (the African in these parts has very vague ideas of time). Examination revealed a right hydrocele of moderate dimensions, estimated at about a pint. It was not quite typical of a hydrocele since it could not be completely flexed on the abdomen, although it was dull on percussion, tense, and obviously contained fluid. This slight divergence from the normal clinical findings was attributed to a much-thickened cord, a common accompaniment to large hydroceles which have been carried for many years.

A much more interesting finding than the hydrocele was a very large abdominal tumour extending out of the pelvis to midway

between the umbilicus and xiphisternum. This gave the appearance of a seven-month pregnancy. It was diagnosed as an enormously distended bladder, although no history of dysuria could be obtained. Histories in these people are so unreliable that they must often be disregarded. A rubber catheter was passed but seemed barely to reach the bladder, and would go no further. Only a few drops of urine were obtained. Rectal examination revealed no enlargement of the prostate. It was decided to operate on his hydrocele and follow this by the passage of sounds, and if this should prove unsuccessful a suprapubic cystotomy was anticipated.

Under spinal anaesthesia the tunica vaginalis was exposed through a low inguinal incision. The hydrocele was tapped before delivery, and during the evacuation of six pints (3.41 l.) of the usual straw-coloured fluid the abdominal tumour was observed to subside. After opening the sac an exploring finger could be freely moved throughout the lower abdomen and pelvis. The wall of the sac lay above and in contact with the bladder, a sound being passed to ascertain the exact relationship. It was in contact with both sides of the pelvis and the promontory of the sacrum. It reached upwards as far as a large Kocher forceps would reach, though the fundus could be easily brought in contact with the examining finger by pressure on the abdomen above. There was a patch of calcification on the wall about the size of a half-crown.

Although the fundus could be gripped with a forceps and the sac partially everted, it was not possible to strip it off the adjacent structures. The scrotal end of the sac was left open with the edges everted in the hope that re-formed fluid might drain into the scrotal tissues and be absorbed. Eleven days after the initial operation 1 pint (0.57 l.) of blood-stained fluid was evacuated through a suprapubic incision. The patient was discharged from hospital on the 21st day with no further evidence of the fluid again collecting.

COMMENT

How this hydrocele sac formed is a matter of speculation. Presumably the processus vaginalis had been obliterated high up, and the upper end of the tunica vaginalis grew intra-

abdominally in response to the pressure on the fluid collecting within it, in a somewhat similar manner to the hypertrophy of the tunica within the scrotum in normal hydroceles. The proportions and relations of the hydrocele can be seen from the accompanying diagrams.

Our thanks are due to the Director of Medical Services, Uganda, for permission to publish this case.

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Convulsions under Thiopentone

The following case report seems to be interesting enough to merit publication.

CASE REPORT

A workman aged 50 was admitted to hospital on March 1, 1947, suffering from a laceration of the right leg. His physical condition was fair. He was given 1/4 gr. (16 mg.) of morphine sulphate and 1/100 gr. (0.65 mg.) of atropine sulphate at 12.30 p.m. At 2 p.m. he was taken to the theatre for operation. One gramme of thiopentone ("pentothal"—Abbott laboratories) from a recent stock in regular use was prepared as a 5% solution. One of us (A.F.) administered this intravenously in the left ante-cubital fossa; 0.5 g. was used for induction, and as the operation site was prepared a further 0.25 g. was given slowly. About three minutes after starting the anaesthetic and soon after the surgeon had begun the débridement of the wound the left forearm began to move convulsively with a pronating movement; this was followed by movements of the legs, and fibrillary twitchings were noticed in the exposed muscle. Although the patient was already deeply anaesthetized and did not respond to the eyelash or eyelid reflexes, a further 0.25 g. (making a total of 1 g. in all) was given in an attempt to stop the convulsions and continue the operation. The movements, however, increased and spread to the diaphragm, the rapid convulsions of which could be seen in the epigastrium. The jaw was tightly closed and the chest rigid. The patient became cyanotic, and an oral airway was passed with the help of a mouth gag. Oxygen was administered by pressure on the reservoir bag and 1.7 ml. of nikethamide was given intravenously. Soon afterwards the patient began to vomit a lot of thick brown mucus without effort. There was no laryngeal spasm or coughing. No convulsive movements were seen in the face, but the pupils were dilated to about two-thirds the diameter of the cornea—probably an effect of anoxia. The patient was returned to the ward, the convulsions continuing. By 2.40 p.m. the convulsive movements were wearing off, but he was still vomiting. His blood pressure was 110/75, the pulse 100, and the general condition not bad. He was taken back to the theatre still unconscious, and the operation was completed uneventfully in about half an hour under oxygen and a little ether.

The following findings were made immediately after the operation: Blood urea, 18 mg. per 100 ml.; urine urea, 2.4 mg. per 100 ml.; routine urine examination, neutral; specific gravity, 1020; albumin and sugar, nil; blood sugar, 95 mg. per 100 ml.; Wassermann reaction, negative; fundi, no significant changes. On questioning the patient the following day he was found to be an opium addict, smoking about 4 g. daily.

DISCUSSION

This was not a case of laryngeal spasm, often associated with thiopentone administration; nor was it simply a tremor which is sometimes seen on induction with this drug. The movements were definitely convulsive and interfered with respiration. It was quite unlike a true "ether" or "anaesthetic" convulsion, which usually starts with twitching in the orbicularis oris muscle: in this case the face was not affected at all. The patient had a temperature of 97.6° F. (36.4° C.); the theatre temperature was moderate. Only a small dose of atropine was given pre-operatively. There was no anoxia up to the time the convulsions started. In any case thiopentone is an effective antidote to "anaesthetic" convulsions. The association with opium addiction may be significant, but the amount smoked daily was small. Many addicts have been anaesthetized with thiopentone in this hospital, but this is the first case of convulsions seen here.

We wish to thank the chief medical officer of the Anglo-Iranian Oil Company, who has kindly consented to the publication of this note.

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