SARCOMA OF AN UNDESCENDED (ABDOMINAL) TESTICLE.*

BY

G. H. EDINGTON, D.Sc., C.M., F.R.F.P.S.G.,

VISITING SURGEON, WESTERN INFIRMARY; LECTURER IN CLINICAL SURGERY, UNIVERSITY OF GLASGOW.

THE specimen exhibited was an example of malignant disease of an undescended testicle.

The patient was a labourer, aged 49, sent to see me at the Western Infirmary in July, 1920, with a complaint of pain, of several months' duration, in the left side of the abdomen. The pain, dragging in character and coming on after strenuous work, followed and was attributed by the man to an operation in another hospital two years previously for varicose veins in the left lower limb.

First Operation.

On one occasion swelling was observed in the left groin. On examination no hernia was found, but the left scrotum was empty and there was a small scar in the left groin. There was also an operation scar in the middle of the inner aspect of the thigh.

The inguinal region was exposed by incision, and a small fatty inguinal sac was found projecting from the external ring. The sac and some accompanying vessels were drawn down, ligated, and removed. There was no trace of vas deferens or of testicle.

Second Operation.

The man was readmitted in October, 1920; he complained of persistence of pain on working, extending from the left groin downwards as far as the foot, and upwards into the lumbar region. It was thought that the pain might be originating in the undescended testicle, and transverse laparotomy was performed through the outer part of the left rectus, with splitting of the internal oblique and transversalis muscles. An adherent epiploic appendage from the sigmoid colon led to a mass in the pelvis, firmly seated between the bladder and rectum. This mass was enucleated after the peritoneum over it had been opened. It had two pedicles: one, fatty and fibrous, attached it to the pelvis; the other was from the spermatic vessels, about half-way along the pelvic brim. He was discharged, with the wound healed, in three and a half weeks.

The mass was a flattened ovoid, measuring 5.3 cm. × 4.3 cm. × 3 cm. It bore a general resemblance to a testicle with faintly indicated epididymis along one side. The smooth convex surface showed several bosses of soft consistence which suggested cystic formations. No trace of vas deferens was seen. A histological examination of the specimen was made by Dr. Ernest Dunlop, who reported that it consisted of a highly cellular malignant tumour of sarcomatous type, with considerable areas of necrosis. In one part the remains of atrophic testicular substance were seen.

After-History.

The man reported at the infirmary in November, 1921. There were no signs of any extension of the tumour, but he stated that he still suffered from pain in the whole length of the lower limb, and that it had not yielded to counter-irritants. The pain did not trouble him when resting, but walking brought it on. Its distribution corresponded with that of the internal saphenous nerve.

Malignant disease of the testicle, whether normally descended or not, is comparatively rare. Eccles¹ gives its frequency as 1 in 2,100 of all male admissions to a large London hospital.

The liability of undescended testicle to malignant change has long been known, and the opinion has from time to time been expressed that such liability is greater than in normally descended organs. This opinion has not been received without question. Thus, Eccles expresses the view that a greater frequency of malignant disease in imperfectly descended testicles "cannot be substantiated." When sarcoma of the arrested testis does occur it is "a disease of middle life" (loc. cit., p. 53). "In most instances an infection of the lumbar lymphatic glands takes place before any attempt at removal can be carried out... death occurs within one year of the removal of the diseased organ" (loc. cit., p. 58).

Thomson Walker,² writing in 1914, quotes the figures of various observers which support the opinion that there is greater comparative frequency of malignant disease in undescended than in descended testicles. The various series comprised all the cases of malignant disease, in both descended and undescended organs. Of Russell Howard's 57 cases, 9 were in retained testes (16 per cent.); in the Massachusetts General Hospital series of 54 cases, 6 were in retained testes (11 per cent.); and of Schadel's 41 cases, 5 were in retained organs (12 per cent.). W. B. Coley's figures³ show an even higher incidence in undescended organs. He found that the ratio of malignancy in undescended to descended is as 1 to 5.5. When these ratios and percentages are compared with the

ratio of non-descent to the normal—namely, 1 to 50 (2 per cent.)—it will be seen that the case for greater frequency of malignant growth in undescended organs is strong.

The situation of the misplaced organ calls for notice. It cannot be looked upon as arrest of the testis at any point in its normal course. No vas deferens was identified in the inguinal canal at the time of the operation on the hernia, and it might be supposed that an abnormally short vas had anchored the testicle down to the base of the bladder. Here again, however, although there was a fibro-adipose pelvic pedicle, there was no definite structure corresponding to the vas found in it, nor was any seen in the vascular pedicle. I am therefore unable to offer an explanation of how the testis came to occupy this situation.

The tacking down of the epiploic appendage to the testicle appeared at the time to be purely inflammatory, and this is borne out by the absence, thirteen months later, of any signs of malignant disease in the region.

In the absence of any signs of enlargement of the lumbar glands, the pain complained of in the lower limb must be attributed to implication of nerve twigs in the scar of the operation for varicose veins.

The patent processus vaginalis calls for no comment. It is to be expected in all cases of departure from the normal descent of the testicle.

REFERENCES.

- ¹McAdam Eccles: *The Imperfectly Descended Testis*, London, 1903.
- ²Thomson Walker: *Surgical Diseases and Injuries of the Genito-Urinary Organs*, London, 1914, pp. 765-6.
- ³W. B. Coley: *Surgery, Gynecology, and Obstetrics*, vol. xxviii, May, 1919, p. 452.

BILHARZIA HAEMATOBIA IN INDIA.

BY

A. H. HARKNESS, M.R.C.S., L.R.C.P.,

HONORARY MEDICAL OFFICER TO THE VENEREAL DISEASES DEPARTMENT, ST. PETER'S HOSPITAL, LONDON.

IN September last I was consulted by a man, aged 26, who complained of a urethral discharge, noticed for the first time on the previous day. It is possible that he was exposed to infection a fortnight before.

He complained of itching of the penis, and gave a history of pains in the back and frequency of micturition during the last two months. He had had a similar discharge and frequency of micturition two years earlier when on active service in India, where he was stationed for three years. This discharge persisted for two days and then disappeared completely without treatment.

I found him to be suffering from a slight greyish-white viscid urethral discharge. A smear was taken which showed a fair number of pus cells but no organisms. Rectal examination revealed an apparently normal prostate, but both vesiculae seminales were very distended. These were easily stripped, and in the urine passed after this examination bilharzia ova were first seen. A similar specimen was taken on the following day, and the presence of ova was confirmed by Mr. N. H. Johnson, who kindly made the following report: Urine, sp. gr. 1015, reaction acid; microscopic blood present, also trace of albumin and few pus cells; large numbers of spermatozoa were present; four live bilharzia ova found (*Schistosoma haematobium*).

The urethral discharge lasted two days and disappeared without local treatment. The patient was given intravenous injections of sodium antimony tartrate, in accordance with Dr. Christopherson's observations. They were given three times a week, beginning with gr. 1/2, the dose being increased by gr. 1/2 at each subsequent injection to a maximum of gr. 2 1/2, which was continued until the patient had had in all 30 grains. During the course of injections the patient remarked on a great improvement in his general health, the frequency of micturition having completely disappeared after ten grains had been administered; since then nothing abnormal has been found in the urine. After the eighth injection he complained of a feeling of nausea, and had a paroxysm of coughing after the last injection. In no other way did he experience any inconvenience during treatment.

It is considered that the patient was infected during his stay in India, and therefore that India must be an infected country. His previous trouble two years ago was really a manifestation of bilharzia.

There are very few cases recorded of undoubted bilharzia infection in India. Neumann,¹ Santelice, Loi,² and Frank Milton³ consider that India is an infected country. Montgomery,⁴ in 1906, stated that bilharziasis was an established disease amongst the domestic animals of northern India, and that parasites had been obtained from the horse, donkey, cattle, and sheep. He also considered that the human parasite could live in India, and that India was suitable for the propagation of the parasite. Arthur Powell⁵ reported

* Communicated to the Royal Medico-Chirurgical Society of Glasgow, January, 1922.