

one testicle (usually the left) is retained within the abdomen, or it may be in the inguinal canal, sometimes it is just beyond the external ring. An important question is concerning the possibility of retained testes performing their natural functions. John Hunter considered that, when both testes were retained in the abdominal cavity, the individual was sterile. Curling,* however, differed from this view, and was quite convinced that, if the testicles were in the abdominal cavity, they were quite capable of performing their natural functions. On the other hand, if a testicle were retained in the groin, it in all probability would undergo atrophy, and would be functionally useless. If the testicle is in the abdomen, it is protected from injury, and its nutrition is probably well maintained; if, however, it be transferred to the inguinal canal, it is there exposed so that inflammation may be excited in it, or its nutrition interfered with. These remarks would apply equally to a testicle situated in the perineum. We are not justified, however, in assuming that all such glands are functionally useless. Bryant† records a case in which a testis in the inguinal canal was complicated with an encysted hydrocele; he tapped it and drew off fluid containing spermatozoa. Ledwich‡ dissected a testicle which had been implanted in the perineum and found spermatozoa in the ducts. We may conclude that when a gland is in an abnormal position outside the abdomen, it is liable to become atrophied and useless. It may undergo fibrous or fatty degeneration. This result is not so likely to occur when the testicle is retained entirely within the abdominal cavity.

One considerable danger existing in cases of testis retained within the abdomen is, that any inflammation of the organ very readily spreads to the peritoneum, and sets up acute peritonitis.

A retained testicle may be the seat of malignant disease, or it may be complicated by the development of a hydrocele, constituting what Curling called inguinal hydrocele. It is very common to have a hernia complicating the condition. Of 25 cases recorded, by Williams, of testis in perineo, 3 were complicated with hernia. It appears to occur with still greater frequency when the testicle is retained in the

groin. It is worthy of note that an inflamed undescended testicle may give rise to symptoms simulating intestinal obstruction.*

In this paper I cannot discuss the treatment or diagnosis of these conditions. Mr. Watson Cheyne has recently devised a very simple apparatus for securing the testicle in the scrotum, after the operation for replacing it in its proper position. A reprint of Mr. Cheyne's paper appears in *THE CANADIAN PRACTITIONER* for March 17, p. 133.

I will now briefly narrate notes of a case under the care of Dr. Cameron, in the Toronto General Hospital. Dr. Cameron has kindly permitted me to report the case. I assisted him in the operation on March 21st, 1890.

F. W. S., æt. 25, single. Patient has never enjoyed particularly good health; has had measles, mumps and whooping cough; no other serious illness. The family history is good; parents both living; one brother died in 1886; the cause of death was thought to have been consumption.

At 10 years of age he first noticed a lump in the groin, about the size of a hen's egg; he does not know whether it had been there previously; his attention was first called to it by some boys who were "in swimming" with him. He suspected it to be a testicle, and endeavored several times to force it into the scrotum, but without success. About six years ago he accidentally discovered a swelling in his scrotum; he does not know how long it had existed, but at that time it was about as large as his clenched fist. He consulted a physician, who thought it was a hydrocele, as it was translucent. When he lay on his back it almost entirely disappeared. On seeking further advice he was advised to wear a truss, but this caused him great pain and annoyance, by pressure on the testicle, and did not prevent the return of the swelling. He then wore a suspensory bandage for a time. He consulted a doctor in Toronto, who advised rest and change of scene. He spent a summer in Muskoka, and subsequently went to England. On his return it was thought that the tumor had somewhat diminished in size, and that his general health had improved, but he was not satisfied with his progress, and was very uneasy about his condition. He consulted Dr. Cameron in March of the present year.

* Curling on the Testis, Am. ed., p. 93.

† Bryant's Practice of Surgery, vol. ii., p. 238.

‡ *British Medical Journal*, 1883, vol. ii., p. 110.

* Holmes' System of Surgery, vol. ii., p. 894 Am. ed.