CHAPTER VII

DISEASES OF THE TESTICLE

LUXATION OF THE TESTICLE

Occasionally the testicle is dislocated. In 1 case reported,[1] the right testicle was suddenly and violently drawn up into the inguinal canal during masturbation, and did not come down again. Later in life, when the patient died, this testicle was found soft, atrophied, pulpy, about one fifth the size of its fellow. P. Brüns [2] records the case of a man run over while lying on his back. The right testicle was dislocated over the pubis at the root of the penis. It remained there and did not atrophy. He refers to other traumatic dislocations, one under the skin of the thigh (the testicle atrophied), and a number where the luxation was into the inguinal canal.

HYPERTROPHY AND ATROPHY

The testicle undergoes compensatory *hypertrophy* when its fellow is defective or wanting, and in certain lusty individuals the testicles are abnormally large.

Arrest of development is typical in the retained testis and may also affect the normally situated organ for no assignable cause.

True *atrophy* is caused by severe orchitis in any form, by pressure (hydrocele, elephantiasis), by section or obstruction of the spermatic artery, by contusion of the testicle, by severe varicocele, and by injuries to the nerves, spinal cord, and brain. It may occur spontaneously or during the course of a syphilis without gummy deposit; but it is never caused by the internal use of iodids, by injury to the vas deferens (unless the vessels are injured), or by continence. Sexual excess is alleged to have caused atrophy of the testicles. The physiological atrophy of old age has been studied by Desnos,[3] Griffiths,[4] and Pawloff.[5]

[1] Med. Times and Gazette, xviii, 67.
[2] Mittheilungen aus der chir. Klinik zu Tübingen, 1884, iii, 483.
[3] Guyon's Annales, 1886, iv, 72.
[4] J. of Anat. and Phys., 1893–'94, xxviii, 209.
[5] Guyon's Annales, 1894, xii, 291.

There are two forms of atrophy, the one *sclerotic*, the result of inflammation, the other *fatty*, the result of an obstruction to the circulation.

The orchitis of mumps is the most frequent cause of atrophy of the testicle.

Treatment.—For atrophy of the testicle but little can be done. The causes are usually beyond the surgeon's control. In certain cases the cause (neighbouring tumour, syphilis) may be removed.

CONTUSIONS OF THE TESTICLE

Owing to its peculiar anatomical surroundings contusions of the testicle are rare, notwithstanding its exposed position. In severe contusions there is ecchymosis, and perhaps hematocele or orchitis, and subsequent atrophy may result. One of the modes formerly adopted in the East for emasculating the attendants of the harem was that of squeezing the testis, and animals have been treated in this way in England and France (Curling). The inflammation after injury may be sufficiently severe to result in abscess or gangrene.

Kocher records 2 deaths from the shock of contusion of the testicle.

Treatment.—If the contusion be severe, the patient must be placed at once upon his back, with the testicle elevated and covered with a cooling application; if subsequent inflammation occur, it must be met appropriately (p. 733).

WOUNDS OF THE TESTICLE

Punctured wounds, if small, are of no importance. They give rise to no inconvenience and heal without trouble. Penetrating wounds of fair size, however, permit some of the tubular structure of the testis to escape. This, if projecting and covered with pus, is very likely to be mistaken for a slough, and to be pulled out as such. Malgaigne mentions a case where he saw the whole pulp of the organ pulled out in this way. Injuries to the testicle, whether contusions or wounds, are usually very painful, and give rise to faintness, nausea, vomiting, and even convulsions. The testis may atrophy as the result of the injury or of a subsequent orchitis.

Treatment.—If there is any hernia of the secreting substance, this should be reduced if possible, and retained by pressure, or by a suture through the tunica albuginea. If it cannot be reduced, it may be snipped off with the scissors, but should in no case be pulled

upon. Large incisions should be cleaned, united by suture, and the parts carefully supported. Even if a large portion of the testicle has been destroyed by the accident, an effort should be made to preserve what is left. Dorsal decubitus must be maintained, and the testicle properly supported and dressed.

GANGRENE OF THE TESTICLE

Gangrene of the testicle is commonly due to **Torsion of the Spermatic Cord**, a condition not generally recognised until within a few years. Scudder [1] has collected 31 cases, to which he adds 1 of his own. Of the 32 cases, 17 occurred on the right side, 11 on the left. Seventy-five per cent of the cases occurred in patients under twenty-three, at an age, namely, when the individual is most exposed to traumatism, and yet the trouble was usually attributed to nothing more violent than hard work or some indefinite strain. Indeed, in several cases the attacks were recurrent; thus, Van der Poel's patient learned that untwisting the testicle relieved the pain. The only evident predisposing cause is malposition of the testicle. Ten times the affected gland was retained in the inguinal canal, 5 times close under the pubes. Hence Scudder infers that a long mesorchium is required to permit torsion of the testis.

Morbid Anatomy.—The pathological changes in the testicle are well known from the results of castration. The testicle is found congested, hemorrhagic, edematous, or gangrenous. There is usually vaginal hydrocele or hematocele. The cord is found twisted upon itself (outward in 7 cases, inward in 5) one half to two and one half turns, and strangulated at the point of torsion.

Symptoms.—The symptoms are those of strangulated hernia, for which it is commonly mistaken. The groin and scrotum swell rapidly and become exquisitely sensitive. The patient vomits and is feverish and faint. Chill and syncope may occur. If the testicle is normally situated it may unroll spontaneously, thus relieving all the symptoms; but with the testis in the inguinal canal this could scarcely happen.

It is probable that certain cases of acute spontaneous orchitis are due to slight or temporary torsion of the cord.

Diagnosis.—Torsion of the cord has been distinguished from strangulated hernia by the mildness of the systemic disturbance, after the first shock has passed, in contrast with the severity of the local symptoms. In case of doubt immediate operation solves the difficulty.

[1] Annals of Surgery, 1901, xxxiv, 234.

Treatment.—Recurrent torsion might be prevented by anchoring the testicle to the dartos.

In the emergency of an acute attack it may be possible to untwist the testicle, as was done by Nash an hour and a half after the onset of symptoms. (The testicle subsequently atrophied.) In the majority of cases, however, operation affords the only hope of relief. The operation has been performed 29 times with no deaths. Once the testicle was allowed to slough away through a simple incision. The cord was untwisted 5 times. This was followed twice by sloughing and thrice by atrophy. Twenty-three castrations were successful. Every case operated on, therefore, has been cured.

Injury to the Spermatic Cord.—While such injuries to the spermatic cord as totally shut off the blood-supply of the testicle are calculated to cause gangrene of the organ, the impunity with which the cord may be tied off is exemplified by numerous cases collected by Mauclaire.[1] This operation is, apparently, almost always followed by simple atrophy of the testicle, a fact explained by the blood supplied to the testicle from the surrounding fascia, which furnishes sufficient nutrition to prevent sphacelus.

IRRITABLE AND NEURALGIC TESTICLE

Irritable Testicle.—True irritability of the testicle consists in an extraordinary sensitiveness of the whole gland or of some particular part of it. Mere contact of the clothing may be exquisitely painful. In the recumbent posture with nothing in contact with the testicle, the pain usually disappears. Perhaps the organ is tense and engorged, but of full size, and seemingly normal. Again, it may be decidedly flabby, the scrotal tissues being soft and lax. Irritable testis occurs at all times, from early puberty to late middle life. It is met with chiefly in old bachelors and widowers. In other respects the patient may possess robust health; or he may be anemic, nervous, hypochondriacal, and dyspeptic.

The title has been inappropriately bestowed upon another condition, which may be briefly disposed of. When the sexual appetite has been kindled and kept excited for some time without being gratified, seminal fluid, which has been produced and is collected in the testicle, vas deferens, and seminal vesicles, will usually be discharged in an involuntary emission at night, and no inconvenience will be felt beyond slight aching and increase of size of the testicle. Sometimes, however, Nature fails to relieve herself, and then the testicle becomes

[1] Guyon's Annales, 1900, xviii, 356.

large, hot, and excessively tender, the epididymis is distended and knotty, the cord tender and tense, the suffering very considerable, and the testicle, apparently, about to become acutely inflamed. Such a condition is a mere sexual congestion. The origin of the mischief can always be ascertained. A cure follows natural discharge of the excess of semen, or may be brought about by rest, elevation of the testicle, and the application of ice.

Neuralgia of the Testicle.—An excessive irritability of the testicle constitutes neuralgia, a malady which sometimes attains horrible intensity, and assumes the paroxysmal tic douloureux type. In other cases the pain is constant, and perhaps quite mild, but increased by walking and standing so as to occasion great discomfort. The character of the pain is acute and darting, or heavy and dragging. The cremaster contracts spasmodically during severe paroxysms, forcibly retracting the testicle, and a cold sweat, with nausea and vomiting, is not a rare accompaniment. Between paroxysms the testicle is often entirely free from pain. Handling the organ may perhaps induce a paroxysm. The testis, sometimes swollen and tense, is usually unaltered. There is no febrile reaction. Neuralgia is usually confined to one testicle, unlike irritability which is frequently double.

Etiology.—Neuralgia of the testis, like that of the ovary, has been attributed to every possible reflex; but certainly its most potent cause is sexual excess or irregularity, frequently that unchaste continence which revels in the paraphernalia of indecency, lewd books, plays, tales, and thoughts, while seeking to hide beneath the cloak of physical propriety. Temporary irritable testis may be produced in a healthy person, at any time, by prolonged sexual excitement ungratified. Masturbators who have suddenly reformed, and those who have abused their sexual powers, are all liable to it. Add to these physical causes a neurotic disposition and the picture is complete.

The more severe forms of neuralgia may be symptomatic of renal or of vesical calculus. Neuralgia is often associated with a small varicocele, rarely with a large one. Sometimes prostatic congestion is the cause, and in isolated cases neuralgia has been caused by foreign bodies in the vaginalis, abscess of the testicle, and similar local conditions.

Symptoms.—Neuralgia due to the causes last mentioned is usually unassociated with any physical disturbance. Quite different is the condition of those who suffer from the ordinary irritable testicle. These patients are prone to become more and more self-centred and to look upon their condition as a pitiable one, ascribing it to loss of seminal fluid—perhaps to nocturnal emissions—to neither of

which does it bear any relation. They often demand castration—a demand which should be acceded to on no account. Curling quotes from Romberg an interesting case bearing on this point: A young man acquired irritable testis after becoming engaged to be married. It distressed him so seriously that he demanded extirpation of the organ, and would not yield until at last the operation was reluctantly performed. Eight days afterward the pain reappeared in the other testicle. This being all he had left, the patient preferred to keep it. He married, and "very soon recovered completely."

Treatment.—Neuralgia dependent on disease of the urethra or testicle disappears with its cause. Yet in a notable proportion of cases of purely sexual origin, the gentle passage of a sound or the installation of nitrate of silver (p. 134) into the deep urethra will work wonders and start the patient on the road to a cure far more quickly than anything else. But too much dependence must not be placed on such methods. They are but palliative, and if not rapidly curative they soon lose their efficacy. The backbone of the cure is sexual reform. Sexual hygiene, which means strict purity of thought as well as action, must be insisted on. A strict celibacy is usually impossible to such patients, while a happy marriage affords them a natural antidote to the irritability of their sexual apparatus, and is therefore to be urged relentlessly. The wavering patient is usually most unwilling to assume the yoke, fearing to prove a laggard partner. But he must be made to understand that a happy marriage—not a marriage of convenience—is his surest guarantee. At the same time the regulation of physical hygiene, exercise, diet, fresh air, regular hours, all must be minutely arranged. Tonic preparations of hypophosphites, glycero-phosphates, bromid of gold and arsenic, Fowler's solution, strychnin, and belladonna may be prescribed according to the physician's experience. They answer the double purpose of steadying the patient through his first period of reform and of soothing his mind with the assurance that something is being done for him. Locally counter-irritants may be of service. Hammond has successfully used intermittent pressure on the cord. The actual cautery and electricity might be useful. I have effected a cure by the local application of ice. A daily rectal douche, hot or cold, is often very beneficial.