

WITHDRAWN

THE TREATMENT OF MALDESCENSUS TESTIS IN THE MIRROR OF THE LAST CENTURIES

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Introduction & Objectives: For more than 150 years, urologists, surgeons and paediatric surgeons have searched for the optimal therapy of the maldescensus testis. The aim of all operative procedures has been mobilization and lengthening of the spermatic cord followed by a final orchiopexy. Later, the possibility of hormonal treatment was added as a supplementary therapeutic approach.

Material & Methods: A search of primary and secondary sources (books, journals, internet) was conducted in order to reproduce historical approaches to the treatment of maldescensus testis.

Results: The first successful surgery was performed by Max Schüller of Munich in 1881. Seven years later, in order to stretch the funiculus spermaticus, Hahn transferred the testis outside in front of the scrotum. In a similar way, Katzenstein performed a temporary orchiopexy by surrounding the testicles with a pedicled strip of the fascia lata, attached to the thigh. Other modified "stretching"-methods were also described: In 1908, Starr conceived a particular method using a stiff silver wire that was attached for 12 days to the perist of the pubis and the lower pole of the undescended testicle. Mauclair introduced the stitching of the undescended testicle to the opposite testis after mobilization into the scrotum. In 1910, Ombredanne moved the testicle through the scrotal septum to the contralateral side. In the 1930s, Shoemaker described a technique involving the transfer of the testis into an artificially bag between the tunica dartos and the scrotal skin. Another method utilized the mobilization and cutting of certain vessels to reach a tension-free transposition of the testis. In 1924, the La Roque-Manoeuvre used the retroperitoneal mobilization to conduct orchiopexy through an abdominal approach. In 1959, Fowler & Stephens succeeded in severing testicular arteries and also documented a sufficient collateral blood supply using the new technique of angiography. A hormonal treatment of the maldescensus testis was first reported by Schapiro in the 1930s. He applied to the patient a gonadotropine preparation obtained from the urine of pregnant women. Finally, in 1938, Hamilton & Hubert set forth a descensus testis by injections of androgens. In the 1970s, microsurgery offered new possibilities to conduct vascular anastomosis of the testicular vessels.

Conclusions: Today, the aim of the therapy is to transfer the testicle without tension deep into the scrotum. By doing so, irreversible damage to spermatogenesis in the afflicted testicle can be prevented. A hormone therapy can also be used to treat testicular retention before the age of one.

COMBAT UROLOGY IN WORLD WAR II. URINARY PATHOLOGY AT THE RUSSIAN FRONT (1941-1943)

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Introduction & Objectives: The aim of this retrospective study is to show the history, technical equipment, sanitary logistics and relevant activities carried out by the Spanish Urologists who joined the Spanish Expeditionary Corps known as "The Blue Division" during World War II, between 1941 and 1943.

Material & Methods: Many documentary sources were revised for the developing of this work, including both written and oral testimonies. Coming from official military archives, many declassified documents were consulted as objective tools to clear up the composition of the Spanish Medical Staff, the number of Urologists, the way they were organized, their technical resources and the pathologies they had to face up during the campaign. The oral testimonies were obtained by fulfilling multiple interviews with Urologists who directly participated in the analyzed period and events, as long as with other military nurses, paramedics and soldiers attended in the battlefield by the Urological Corp.

Results: Along a broad frontline of about 3500 Km, the total amount of casualties attended by the Spanish Military Medical Corps during its presence in the Russian front exceeded the 12400 cases, also including the assistance to local civil population. A representative number of almost a 15% of this medical services were classified under the title of Urological injuries or illness and were performed by military Urologists or Military Surgeons with solid Urological knowledge. This Urological pathologies were attended in Spanish Field Hospitals which resolved over a 80% of them, while the resting 20% was taken to second line Evacuation Hospitals. The sanitary supply was provided entirely by the German Army. In descendent frequency order the registered list of casualties distinguished: Pathology derived from the exposition to low temperatures (frozen genitalia, renal hypothermia, UTI's), wounds as result of fire guns (gunshots, shrapnel injuries, bleedings, lacerations, cuts, blisters, contusions, blast syndrome and explosive wave effects), and Urological general practice pathologies (colics, haematuria, BPH, infectious diseases,...).

Conclusions: 1.- The Spanish Urological practice had to suffer a necessary adaptation to the Russian environment and climate
2.- A well designed logistics was the secret for successfully attending such a big amount of sick, injured or wounded people
3.- The high ability of the Spanish Urologists conquered the confidence of wounded soldiers (no matter their nationality) and civil casualties.

THE ETYMOLOGY OF "CASTRATION" AND ITS ASSOCIATION WITH THE SELF-CASTRATING BEAVER

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Introduction & Objectives: Castration is a surgical operation that has attracted many urologists interested in the history of urology. The etymology of the word castration is surrounded with controversy. My research aimed to find out the origin and the reason for this term with emphasis on its relationship with the beaver!

Material & Methods: Translations of ancient texts by eminent scholars such as Pliny the Elder, Aelianus, Phaedrus and others were reviewed. Manuscripts from the Medieval Period regarding the relationship between castration and the beaver were also reviewed. Experts on bestiary were also consulted.

Results: The term 'castrate' is derived from Latin for Castor, which means 'beaver! The common beaver found on the European continent was known as Castor fiber. Fiber is a Latin name for beaver. Latin word fiber was replaced when Romans borrowed the Greek word for beaver, kastor. There is a suggestion that the word kastor was derived from kasturi mentioned in the ancient Sanskrit text (from India). Pliny mentions "The beavers of the Black Sea region practice self-amputation of the same organ when beset by danger, as they know that they are hunted for the sake of its secretion, the medical name for which is beaver-oil (castoreum)." Aelianus is quoted as "Now it understands the reason why hunters come after it with such eagerness and impetuosity, and it puts down its head and with its teeth cuts off its testicles and throws them in their path. The depiction of this self-castrating behaviour is exemplified by beautiful illustrations in Medieval Bestiary. There is an interesting anatomical basis for this assumption of self-castrating beaver. The beaver has two testicles that are intra-abdominal and does indeed have the castor glands which contain an oily secretion known as castoreum. Castoreum was a prized commodity among physicians as it found a place in treating various ailments including seizures and as a potent aphrodisiac. These castor glands were confused as being testes and it was believed that castoreum was indeed the secretion of the beaver's testes. Therefore the beaver was hunted and these glands were cut (castrare = to cut off). The term Castor was also associated with other entities. Castor and Pollux are the two "heavenly twin" stars that give the constellation Gemini (meaning "twins" in Latin) its name. Various saints had the suffix of castor to denote that they had sacrificed all their worldly possessions.

Conclusions: For the urologist, performing castration, it is interesting to trace the etymology to that of a self-castrating beaver. It is also interesting to discover that this myth continued being depicted in the bestiary of the medieval period and up to recently till the anatomy of the beaver was correctly analysed.