

Pósteres

POSTER 1

Canine Cryptorchidism: from origin to treatments

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Resumo

Introduction: In perpetuation of species, the reproductive performance of males is of great importance. Most Disorder Sexual Development (DSDs) involve consequences on reproduction. Therefore, the study of the most frequent congenital abnormality remains a priority today. Indeed, cryptorchidism (CO) is a hereditary anomaly, worldwide known and described as a disorder of testicular migration. **Objectives:** The objective of this work is to understand the causes of this congenital abnormality in dogs, and to analyze the consequences, in order to apply the best adapted treatment, and thus avoid perpetuation of this anomaly. **Methods:** literature revision. **Results:** Etiology of canine CO is genetic, particularly, inherited as an autosomal recessive polygenic trait [1]. Indeed, the origin of mechanisms and factors of CO results from a heterozygous nucleotide change on a gene [1]. This gene is coding for the Relaxin Family Peptide Receptor 2 (RXFP2) receptor of a G-protein for Insulin-like factor 3 (INSL3) [2]. INSL3 is a hormone involved in the formation and enlargement of the genito-inguinal

ligament (or gubernaculum), as well as in dilatation of the inguinal canal [2]. This ligament's function is to pull the testicle into the inguinal canal and to maintain it in the scrotum [3]. Therefore, when the gene undergoes the missense mutation, the ligament is malformed and does not allow the necessary traction for the testicle descent [3]. The most drastic outcome is tumors development in different testicular cells: interstitial cells, germ and stromal cells of the sex cord, and then Sertoli cells [4]. The cryptorchid testicle is reduced by 10 times compared to a healthy testicle [1]. And despite the presence of spermatogenesis necessary cells, they are in too limited quantity to achieve a spermatogenesis similar to a healthy individual. This is why oligospermia or even azoospermia is one of the consequences of CO [2]. **Conclusions:** Even through the analysis of the available veterinary scientific literature, all the causes of cryptorchidism are still not completely understood. Also, we can conclude that CO diagnostic techniques are constantly improving, and that an individual approach will result in a better treatment.

Keywords: cryptorchidism; canine; disorder sexual development; anatomical description.

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