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RESEARCH ARTICLE

DEVELOPMENTAL BASIS OF CONGENITAL INDIRECT INGUINAL HERNIA WITH CRYPTORCHIDISM

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ABSTRACT

Hernia is the protrusion of the abdominal contents through some weakness in anterior abdominal wall. The indirect inguinal hernia is one of the most common form of hernia and most of the time congenital in origin. Cryptorchidism is a condition in which one or both the testes do not descend in the scrotum. The incidence of unilateral cryptorchidism is 3% of boys at the birth and 1% of boys at the age of three months. During routine dissection the author found a left sided indirect inguinal hernia with cryptorchidism in a male cadaver. On the right side the testis was at its normal location.

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INTRODUCTION

Hernia is the protrusion of the abdominal contents through some weakness in anterior abdominal wall. The indirect inguinal hernia is one of the most common form of hernia and most of the time congenital in origin (Richard). Cryptorchidism is a condition in which one or both the testes do not descend in the scrotum (Sadiqali Abbasali Syed, 2013). The incidence of unilateral cryptorchidism is 3% of boys at the birth and 1% of boys at the age of three months (Susan Standring, 2008). During routine dissection the author found a left sided indirect inguinal hernia with cryptorchidism in a male cadaver . On the right side the testis was at its normal location.

Observations: During routine dissection a swelling was seen on the left side at the inguinal region as well as in the left scrotal sac in a male cadaver. Bilateral dissection was done in the same region. Photographs of each step of dissection were taken.

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DISCUSSION

In present case the indirect inguinal hearnia is associated with crytorchidism. The left testis was found above the left inguinal ligament.

Embryological basis for development of congenital inguinal hernia and crytorchidism: The processus vaginalis, an extension from the parietal peritoneum, develops ventral to the gubernaculum and herniates through the anterior abdominal wall along the path formed by gubernaculum. This descent is responsible for the formation of inguinal canal with deep and superficial inguinal ring. If the communication between the tunica vaginalis covering the testis and the peritoneal cavity fails to close the processus vaginalis remains patent. Contents of abdomen may herniate through it into scrotum (Moore Persaud).

A fibrous band guernaculum extends from the lower pole of testis to the bottom of the scrotum. Due to relative shortening of the gubernaculums, the testis reach to their normal location. A clinically undescended testis may be seen anywhere on its normal path of descent. Testes are seen in the inguinal canal at 7th month of intrauterine life (Vishram Singh).

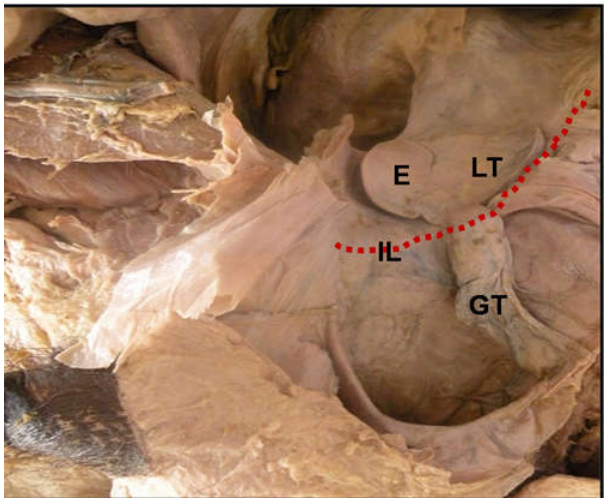

Fig. No. 1. Left testis (LT) with epididymis (E) were seen behind the coils of jejunum; above the inguinal ligament (IL). Testis was small in size and compressed antero-posteriorly. A thick fibrous band gubernaculum testic (GT) was seen attached to it at the lower pole. The caudal end of gubernaculum was attached to the lateral side of the bottom of the left scrotum. Length of gubernaculums was 6.2 cm

In the present case the processus vaginalis did not separate from general peritoneal cavity, leading to congenital inguinal hernia. The descent of testis must have been arrested in 8th month of intrauterine life at superficial inguinal ring. Congenital inguinal hernia is common in male infants and is most of the time associated with cryptorchidism (Moore Persaud).

Undescended testis can be associated with a higher risk of infertility and testicular tumours (Susan Standring, 2008). It has been noted that the men with the history of undescended testis have 10 times higher chance of development of testicular cancer than the normal and the incidence increases with age (Moller, 1998).

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