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SUPERNUMERARY TESTIS: A RARE CASE REPORT.

General Surgery

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ABSTRACT

Polyorchidism is a rare congenital anomaly with less than 100 cases reported in the world literature. Several theories have been proposed regarding the genesis of polyorchidism, but the exact explanation is still not known. In majority of the reported cases, the patients are asymptomatic and have painless groin or scrotal masses. In others, it may present as maldescent or cryptorchidism or it may be discovered in relation to an indirect inguinal hernia, hydrocele, varicocele, epididymitis, and infertility, testicular malignancy in maldescended testis or testicular torsion. The majority have triorchidism and the supernumerary testis is most frequently found on the left side. In the present report, a rare case of Supernumerary testis was detected incidentally during orchidopexy for left undescended testis.

KEYWORDS

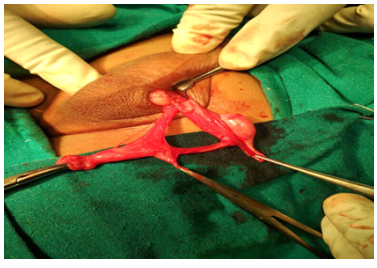
Polyorchidism, scrotal mass, orchidopexy.

INTRODUCTION:

Polyorchidism is an extremely rare congenital anomaly of the urogenital system and is defined as the presence of more than two testis [1]. Its most common presentation is triorchidism [2]. The left side is predominantly affected. Approximately 50% of the cases are detected between 15 and 25 years of age [3]. The majority of patients are asymptomatic or present with painless groin or scrotal masses, undescended testis, and rarely, torsion of the supernumerary testis [4].

CASE PRESENTATION:

A 3-year-old male patient was admitted in our department with the complaint of absence of testis in left scrotum. His medical history was unremarkable and there was no history of trauma. On physical examination, his right testis was located normally in the scrotum, while his left testis was felt in the left inguinal region. On ultrasonography (US), the right testis was 18×13mm in size and normal in echo texture and the left testis was 13×10mm size, normal in echo texture located in the left inguinal region. The case was clinically diagnosed as a case of undescended testis and an orchidopexy was planned. On operation of the left inguino-scrotal region, two testis was found with the vas having distally 2 limbs draining both testis in the 'Y' fashion. The smaller one (measuring 1cm×1cm) was found at a higher level than the larger one (measuring 1.5cm×1cm). Both have independent vascular supply. And had the testis were fixed in left scrotal pouch.



Intraoperative findings

DISCUSSION:

The first histological description of polyorchidism was published in 1880 by Ahlfeld, while the first clinical case was reported by Lane in 1895[2]. Polyorchidism is an uncommon congenital anomaly defined as the presence of more than two testis [6].The exact etiology of polyorchidism is still unknown. However, it could be related to an embryological developmental abnormality during the formation of the testicles [2]. In this type of unusual abnormality of the genital tract, most patients with supernumerary testicles are asymptomatic and have painless groin or scrotal masses [4]. Sometimes, the primary accompanying disorders and/or anomalies include cryptorchidism, undescended testis, infertility, indirect inguinal hernia, torsion, epididymitis, malignancy, hydrocele or varicocele [5].

The majority of the affected patients have triorchidism and as in the present case the supernumerary testis is most frequently found on the left side [4]. Most common associated anomalies (about 80%) are maldescent of the testis or cryptorchidism and indirect hernia (35%) [5].

Polyorchidism is usually identified during orchidopexy and repair of indirect inguinal hernia. An accurate preoperative ultrasonographic scan of scrotal masses differentiates this rare benign entity from more ominous abnormalities such as neoplastic involvement of the scrotal content and thus it prevents unnecessary surgical exploration of sonographically normal, uncomplicated and orthotopic supernumerary testicle. However, in children surgical exploration is mandatory because of the associated maldescent [6].

In a normal embryo, at about 6 weeks of embryonic life, the primordial testis develops from the primitive genital ridge medial to the mesonephric ducts. At about 8 weeks, the primordial testis takes shape and the epididymis and vas deferens arise from the mesonephric (wolffian) duct. Duplication of the genital ridge and mesonephric ducts occurs in the horizontal or longitudinal plane resulting in various types of polyorchidism [4].

Four type of anatomical variations have been described,
Type-I: supernumerary testis lacks an epididymis or vas and has got no attachment to the usual testis.

Type-II: the supernumerary testis drains into epididymis of usual testis and they share a common vas.

Type-III: the supernumerary testis has its own epididymis and both epididymis of the ipsilateral testes draining into one vas.

Type-IV: complete duplication of testes, epididymis and vas.

The Type-II is the commonest and Type-II & Type-III together account for more than 90% cases of polyorchidism

Polyorchidism is usually identified during orchidopexy as in our case and during repair of an indirect inguinal hernia. Biopsy was not done in our case as the size of the testis was very small. Testicular biopsy is rarely indicated in pediatric population [7]. Follow up of these patients is advised once a month for first 3 months, then every 6 months for the next 2 years and later every 2 years up to adolescence by palpating the testis and ultrasonography.

CONCLUSION:

Polyorchidism is a rare genitourinary abnormality and its

management is still controversial. The management will depend upon the location, size and anatomical organisation of the testicular drainage system and the age of the patient. The case presented here is characterised by presence of two testicles of unequal size in the left sided disposed in two different levels with two epididymis and singal vas. As clinically both the testis appeared normal and with a negative consent by parents for an orchidectomy, both the testis were placed in the left scrotum.

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