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Case Report Open Access

An Unusual Case of Cryptorchid Testis Coexisting with Inguinal Hernia in an 84 year Old Man

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Abstract

Background: Inguinal hernia is not an uncommon finding in the elderly but its occurrence in association with a cryptorchid/undescended testis (UDT) in this age group is a rarity. We present the clinical, operative and histopathological characteristics of an elderly man with bilateral indirect inguinal hernia with associated unilateral cryptorchid testis.

Presentation: An 84 yr old man presented with a reducible right groin swelling noticed since birth and a 6 month history of a similar swelling in the left groin.

He had also noticed absence of the right testis in the scrotum since birth but never sought medical attention. He however recently noticed a dull painful sensation in the right groin which started a week before presentation.

Physical examination revealed an elderly man with features of bilateral indirect inguinal hernia. The right hemiscrotum was empty and hypoplastic with the right testis palpable in the inguinal canal. The left testis was normally situated and of normal consistency. Other regions of the body were otherwise normal.

Hernias were confirmed intra-operatively to be of the indirect inguinal type, with an atrophic right testis found in the right inguinal canal. He had a right orchidectomy with bilateral herniorrhaphy using the Darning technique. Histopathology of the right testis showed an infantile testis with no features of malignancy. Post-operative period was uneventful.

Conclusion: Delayed presentation of undescended testis till advanced age is a possibility particularly if it does not interfere with fertility. The risk of malignant transformation may perhaps be lower than what has been estimated.

Keywords: Cryptorchidism; Elderly; Hernia

Introduction

Inguinal hernia is a relatively common finding in adult men [1] particularly in the elderly who are predisposed to several precipitating factors for herniation such as bladder outlet obstruction, chronic constipation and chronic obstructive airway disease. Inguinal hernia being the commonest form of abdominal hernia accounts for 75 to 90% of external hernias predominantly the indirect type [2].

Undescended testis on the other hand which is cessation in the descent of the testis along the normal path of descent is largely a condition found in children with a prevalence of between 1% and 3% in full-term newborns and as high as 30% in premature boys [3]. Most cases of UDT are seen in the first year of life with a mean age of 4 yrs [4]. Impairment of germ cell maturation and subsequent infertility in adulthood are well-recognized consequences of cryptorchidism [5]. The oldest recorded case from our search of literature was in a 50 year old Iranian [6]. We present in this report an 84 year old man with bilateral inguinal hernia and right undescended testis.

Case Report

An 84 year old man presented with a right groin swelling noticed since birth and a 6 month history of a similar swelling in the left groin. He developed dragging pain in the right groin a week before presentation. The recent dragging pain in the right groin was often referred to the periumbilical region and prompted his presentation.

There was no history suggestive of bowel obstruction or strangulation and there was no history suggestive of bladder outlet obstruction, constipation or chronic airway disease.

He had no known medical comorbidities. He has two wives and seven children.

Examination revealed an elderly man who was otherwise healthy looking.

The right hemiscrotum was hypoplastic and empty with deviation of the median raphe to the ipsilateral side (Figure 1). The right testis was palpable in the inguinal canal with a reducible indirect hernia. He also had a left sided indirect inguinal hernia. The left hemiscrotum was well developed with a palpable testis normal in size and consistency. The prostate was not enlarged on digital rectal examination.

He had a preoperative haemogram and urinalysis which were essentially normal. He was planned for right side groin exploration and hernia repair.

Intra-operatively, a right indirect inguinal hernia sac was identified which contained an atrophic right testis measuring 4* 3* 1.5cm, soft in consistency but appeared pink and viable (Figure 2). He subsequently had a right orchidectomy and inguinal hernia repair using the Nylon darning technique. On the left side, an indirect inguinal hernia (bubonocoel) was found and repaired in similar fashion.

He had a smooth postoperative recovery.

Histology of the testis revealed infantile seminiferous tubules and absent germinal epithelium. There was no evidence of malignant transformation.

Figure 1: Hypoplastic Right hemi scrotum and a deviated median raphe.

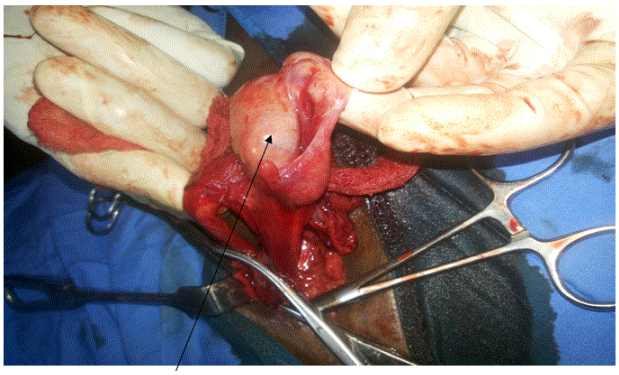

Figure 2: Undescended Right testis in the inguinal canal.

Discussion

Cryptorchidism is the most common congenital anormaly in new born boys with an incidence of 3-5% in full term neonates, 25-30% in preterm males and 0.5-1% in adult males [7,8]. This makes the finding of UDT in such an elderly man to be rare.

The possible locations of the testes extend from the abdominal cavity through the inguinal canal to the neck of the scrotum which connote the usual path of testicular descent. The inguinal region, as in this case is the commonest location where they are found, accounting for about 55% of UDT [9,10], particularly on the right side [8,10,11]. Based on the anatomical location UDT could be intra-abdominal, at the deep inguinal ring, within the inguinal canal, at the superficial inguinal pouch or at the neck of the scrotum.

Various factors have been associated with cryptorchidism, these include patent processus vaginalis, prematurity, low birth weight, and maternal exposure to estrogen during the first trimester [5]. Others include Prune belly syndrome, hypospadias, posterior urethral valves and upper urinary tract anormalies.

UDT could also be palpable or inpalpable. In this elderly man, the UDT was palpable within the inguinal canal which corroborates previous studies [8-10]. This underlines the need for thorough clinical evaluation of such patients in order to make the diagnosis. Imaging mordalities like abdominal ultrasound scan may help detect inpalpable testis in 75% of cases [9]. We however did not require any imaging for this patient.

Although there is a similar incidence of UDT worldwide (1 in 100 boys) [12-14], delayed clinical presentation is not uncommon with in Nigeria and other developing countries [9,10,15]. This delay has been ascribed to the level of awareness of the people, financial constraint and none availability of trained birth attendants that can diagnose undescended testis at delivery [9]. Following literature review, the index case appears to be the oldest individual presenting with undescended testis. A similar case was reported in a 50 year old Iranian man who was found intra operatively to have an undescended testis while undergoing hernia repair [6].

Surgery for children with UDT is best undertaken from the age of 1-2 years in order to preserve spermatogenic function, reduce the risk of malignant transformation, and reduce the incidence of both torsion and trauma to the affected testis. Even though early repair has not been found to eliminate the risk of development of testicular cancer, it is said to allow for early clinical detection of malignant changes.

Local studies report a 4% incidence of testicular cancer in undescended testis, with seminomas being the commonest type and occurring at a mean age of 37.3 years [16]. The histology in this patient showed no evidence of malignancy despite the prolonged unusual siting of the testis. This may suggest an exaggerated impression of malignant transformation of UDT, thus suggesting a need for more studies in this regard.

Chung et al. in his study revealed that the incidence of azoospermia in unilateral cryptorchidism is 13% and this figure increases to 89% in untreated bilateral cryptorchidism, making cryptorchidism the most common etiologic factor of azoospermia in the adult [5].

This extremely late presentation can hence be ascribed to absence of the aforementioned complications in this patient.

The contralateral indirect inguinal hernia was another significant finding in this elderly man. Literature review shows that one in three (1:3) boys with a unilateral palpable undescended testis will have a contralateral patent processus vaginalis as determined by transinguinal laparoscopy [17]. The rate is higher (52%) if the undescended testis was distal to the external ring [17].

The presentation of this octogenarian with bilateral inguinal hernia and an undescended testis which was detected on examination and confirmed intraoperatively serves to encourage meticulous history taking and clinical examination for all patients. A knowledge of the anatomy of the inguinal region is also paramount to successful surgery.

Conclusion

Bilateral indirect inguinal hernia coexisting with a right intracanalicular UDT is seldom expected in an 84 year old man. Absence of infertility and evidence of testicular malignancy in this patient perhaps questions the several postulations which allot significant risks for both.

Randomize control trials may be required in order to further assess these in patients with UDT.

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