



Case Report

Median Raphe (Paramental) Cyst of the Penis as Reversible Cause of Loss of Self-Esteem and Impaired Sexual Behaviour

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Abstract

Introduction: In general, cysts of the median raphe of the penis are asymptomatic. **Objective:** To present a rare case of paramental cyst of the penis, which caused loss of self-confidence, impaired sexual satisfaction and disturbance of the urinary stream. Main outcome measures were effect of negative penis image on man and consequent impact on satisfaction with sexual intercourse and personal distress. **Methods:** A 34-year-old married man sought consultation for a painless cystic mass with abnormal shape of glans penis. The man reported significant emotional distress associated with the image of his penis. He was not satisfied with his sexual life. Psychological analysis of the patient was carried out by a sex psychotherapist. Before and six months after surgical excision, change in patient's emotional well-being was assessed with Self-Esteem and Relationship (SEAR) questionnaire. The International Index of Erectile Function (IIEF) was used to assess change and end point sexual satisfaction. **Results:** Paramental cyst of the penis affected the patient emotionally and clearly impacted his self-esteem. Histopathological examination revealed a solitary cystic cavity. The cystic wall was consisted of stratified columnar epithelium and partly had decapitation secretion. Surgical excision was effective. No postoperative irregularity of urinary stream was noticed. The patient reported significant improvements in sexual function that was associated with positive changes in emotional well-being and sexual relationship. **Conclusions:** This case report supports histogenetic relationship of median raphe cyst of the penis with the urothelium. It was unusual for the sudden growth in absence of inflammatory signs or trauma. It presents the relationship between body and mind. The findings from this case suggest that there is substantial psychosocial burden associated with negative effects of penis image on confidence, self-esteem and sexual satisfaction. The perception of satisfaction with sex act was directly associated with the sense of negative penis image.

Keywords: Median Raphe (Paramental) Cyst of the Penis; Negative Image of the Penis; Self-Esteem; Satisfaction with Sexual Intercourse; Self-Confidence; Voiding Dysfunction.

Introduction

Cysts of the penis are very rare. They are either congenital or acquired. Congenital cysts are midline-developmental cysts known as median raphe cysts [1]. These are benign lesions affecting young men [1,2]. Median raphe cysts of the penis are located along the genitoperineal raphe anywhere from the urethral meatus to the anus, but most commonly near the glans penis [1,2]. Median raphe cysts are also known as paramental cysts when located on the border of the urinary meatus [3]. Cysts of the median raphe represent defects in the embryologic development of the genitalia [1-3]. They may be derived from the external paraurethral ducts [3]. Several terms including mucoid cyst, urethroid cyst, genitoperineal cyst of the medium raphe, paramental cyst, hydrocystoma, and apocrine cystadenoma should be regarded as synonymous [3]. Although generally present since birth, these lesions tend to manifest in adolescence or adulthood [2]. They can be complicated by infection or trauma [4]. In general median raphe cysts of the penis are asymptomatic and do not interfere with urinary or sexual function [2]. In this case study, sudden growth in the absence of inflammatory signs or trauma was unusual, and it had negative impact on voiding function and sexual behavior.

Case Study

A 34-year-old married man presented to a urologic clinic with cystic lesion at the tip of the glans penis, impaired sexual behavior and voiding difficulties. He was in a stable single-partner relationship. The patient reported significant emotional distress associated with the image of his penis. The cystic lesion was first noticed in adolescence as a tiny nodule at the tip of the glans penis. It was small, with a diameter of a few millimeters. It remained unchanged until three years before when it suddenly increased in size. Then, it stopped rising. There was no history of trauma and application of topical medications. He did not have local subjective symptoms in flaccid and erect state of the penis. During voiding, there were no changes in the size of lesion. Sexual history revealed that the pain or any other symptoms were not associated with erotic positions during sexual intercourse. However, during sexual intercourse he was always thinking about the cyst. He was afraid that the cyst could be ruptured or that something could go wrong while having sexual activity. He noticed the decrease in enjoyment of sexual activity. The patient reported low sexual desire and a lower frequency of sexual activity.

Patient's erections were good with respect to their rigidity, but his orgasms were less intense. He practiced sexual activities only in the dark, and thereafter he started evading sexual intercourse.

He was worried and he felt uncomfortable because of appearance of his penis. He lost his self-confidence.

He also lost the ability to control his urinary stream. It was narrow and spraying. He had to void in sitting position.

Inspection of the penis revealed cystic lesion. The cyst was translucent and measured 16x14mm. Palpation showed painless nodule of smooth surface and elastic consistency, located at the meatus of the urethra (Figures 1a and 1b). No inflammatory signs were present. Physical examination of genitalia was normal. Both testes were of normal size and consistency. Ultrasonography was performed and showed anechogenic, clearly confined cyst. The patient voided without post-void residual urine. Urethrocystoscopy did not reveal any concomitant pathology of the urethra or bladder. Total testosterone and free testosterone were normal. Preoperative biochemistry of blood (fasting glucose, fasting lipid), electrocardiogram, and blood pressure were normal.



Figure 1a: Cystic lesion of left paramentus (ventral aspect)



Figure 1b: Cystic lesion of left paramentus (lateral aspect)

The Self-Esteem and Relationship (SEAR) questionnaire was used to assess changes before and after surgical excision of cyst of the penis in emotional well-being. SEAR consisted of the Confidence domain (i.e., the Self-Esteem subscale and Overall Relationship subscale) and the Sexual Relationship domain.

The IIEF was used to explore the relevant domains of male sexual function (erectile function, orgasmic function, sexual desire, satisfaction with intercourse, and overall satisfaction with sexual activity).

Consultation obtained from dynamic sexual psychotherapist. Psychiatric diagnosis: Due to a cyst on the glans penis, the patient was constantly worried and sad for his inadequacy that led to low self-esteem and wrongful self image as a man. Therefore, he developed specific sexual behavior: he had sexual intercourses only in dark, and over the time it led to manifestation of functional disorders – impaired sexual desire, avoidance of sexual intercourse, dissatisfaction with the orgasms. However, none of the above could justify diagnosis of a sexual dysfunction according to DSM-IV-2000TR classification (The Diagnostic and Statistical Manual of Mental Disorders). Major psychological problem was disturbed self-image and loss of self-esteem and self-confidence as man.

The lesion was surgically removed under local anaesthesia. It was followed by histological study. Incision line was made obliquely to the margin of parametatus in order to avoid the possibility of deforming the parametatus. We used absorbable, interrupted suture 4-0 Vicryl.

Histopathological examination revealed a solitary unilocular cystic cavity without connection with urethra. The content of the cyst was clear mucinous fluid. The cystic wall was consisted of pseudostratified columnar epithelium of varying thickness and partly had decapitation secretion. It occurred at the apex of the luminal layer. Atypia and inflammatory infiltrate were absent. The histological diagnosis was median raphe cyst of the penis (1c, 1d).

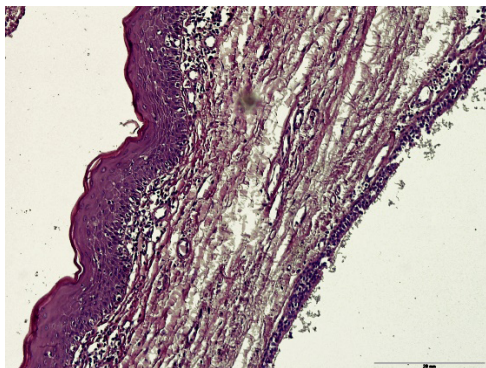


Figure 1c: The luminal surface wall of cyst consisted of pseudostratified columnar epithelium (H&E; 250x).

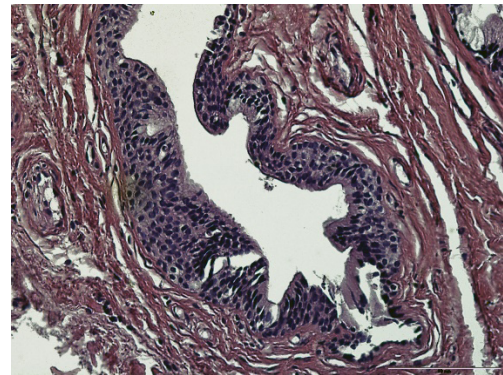


Figure 1d: Cystic cavity layered by pseudostratified columnar epithelium of varying thickness which showed developed apocrine metaplasia in free border (H&E; 250x).

Immediately after operation, patient was able to void in the standing position with good urinary stream. Surgical wound healed per primam without any complications. Functional and cosmetic result was excellent (Fig. 1e). Six months after surgical excision patient reported significantly higher scores on all components of the SEAR questionnaire. Differences in change between scores before and after surgical excision on SEAR components were: Sexual Relationships domain, (75) (25 to 100); Self-Esteem subscale, (100) (0 to 100); Overall Relationship subscale, (50) (50 to 100).

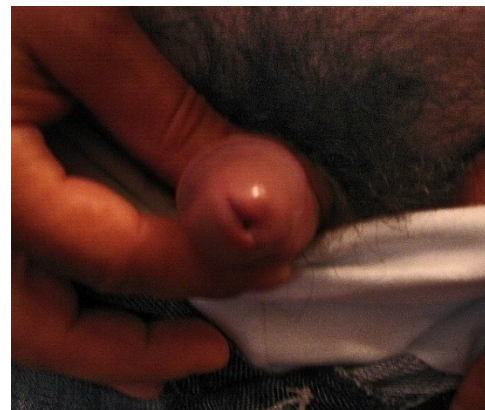


Figure 1e: One month after cyst excision.

He also reported significantly greater improvements on all domains of the IIEF questionnaire, but especially in the Intercourse Satisfaction domain, (i.e., Q6, Q7 and Q8) and Overall Satisfaction

domain (i.e., Q13 and Q14). Difference in change between scores before and after surgical excision on IIEF domains were: Erectile function, (1) (29 to 30); Orgasmic function, (1) (9 to 10); Sexual desire, (4) (6 to 10); Intercourse satisfaction, (8) (7 to 15); Overall sexual satisfaction, (5) (5 to 10).

Discussion

Parameatal cysts of the penis are uncommon benign lesions. The absence of CK20 immunoreactivity was detected in these cysts of the penis [5]. It may be related to the benign, non-dysplastic nature of the lesion [6]. Clinical differential diagnosis includes urethral diverticulum, epidermal cyst, dermoid cyst, glomus tumor, pilonidal cyst, and steatocystoma [2]. All of these were readily differentiated by the histological findings typical of median raphe cyst, a cystic cavity lined by columnar pseudo-stratified epithelium, and with no urethral communication [1].

Generally, they are asymptomatic, but can be complicated by infection or trauma mostly caused by sexual intercourse [2] and therefore may be treated by surgical excision [2,7]. Based on available literature, this case is the first one to be described in which cystic mass and abnormal shape of glans penis caused psychological problem in patient and influenced negatively his sexual satisfaction. The best treatment results are obtained after complete excision of the cyst. Out of 134 cases described in the literature [3], were recurrences [7]. When multiple cysts along the raphe of the penis, scrotum, and perineum connect and form ducts beneath the median raphe of the skin, it is important that they are removed completely to prevent recurrence [8]. However, considering the peculiarity of the affected region, lack of influence on daily life, and the long period from onset to first presentation, most of these cysts appear to remain asymptomatic [7]. Thus, there may be considerable number of unreported cases.

This case was included in investigations on the psychosocial manifestations of negative penis image and its treatment on relationships, confidence and self-esteem. Negative penis image damaged self-esteem and contributed to relationship difficulties. Loss of self-esteem was associated with impaired sexual behavior. The appearance of the penis might have also led the patient to withdraw from sexual and social relationships, causing impairment in his overall health status. Indeed, The World Health Organization includes emotional and psychological well-being in its definition of health.

The presence of parameatal cyst of the penis resulted in personal distress and lower level of satisfaction with sexual activities.

Among the manifestly personally distressed, the vast majority were not satisfied with their sexual life. In fact 26% and 17% of women and men reported at least one distressing self or partner's sexual disability. This can be compared with the sexual

satisfaction rate of 55% in total population of 18-74 year olds [9].

The perception of satisfaction with sex act was directly associated with the sense of negative penis image. Negative image of the penis appeared to have a clear negative influence on the quality of sexual life perception in man with this problem. The loss of libido and the decrease in enjoyment of sexual activity are believed to lead to more passive participation, less stimulation, and consequently, erectile dysfunction [10].

Surgical excision of parameatal cyst of the penis produced substantial improvements in emotional, relational and sexual areas.

Conclusions

This case report supports histogenetic relationship of median raphe cyst of the penis with the urothelium. Sudden growth in the absence of inflammatory signs or trauma was unusual, and it had negative impact on voiding function and sexual behavior. This case presents the relationship between body and mind. It found that negative penis image was related to lower levels of sexual satisfaction.

The level of satisfaction with sexual activities and personal distress associated with negative penis image leads to increased general emotional distress and relationship problems. The findings from this case suggest that there is substantial psychosocial burden associated with negative penis image on confidence, self-esteem and sexual satisfaction. Confidence may manifest itself as behavioural element in which positive thinking leads to increased self-esteem and a more satisfactory overall relationship.

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Authors' contributions: Authors participated in the conception, design and writing of the manuscript, and have read and approved the final version

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