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Case Report

Paraphimosis in a Boy: A Case Report and Review of Literature

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Abstract

Paraphimosis is a disease when the foreskin of an uncircumcised penis is left retracted behind the glans penis for a time period. An uncircumcised boy with a paraphimosis was treated with dorsal slit following subsequent circumcision. This case is presented and discussed with reference to etiology and treatment options of this rather rare but real urgent urologic problem.

Keywords: *Paraphimosis; Surgical Management*

Introduction

Paraphimosis (PP) is one of the few urologic emergencies [1]. Retraction of the foreskin of an uncircumcised male is the initiating event and if untreated it can have severe consequences including penile necrosis. When PP is suspected prompt pediatric surgical consultation is recommended. We present a case of PP in an uncircumcised boy with brief literature review.

Case Report

A 3-year-old boy was admitted to our department with a painful swelling of the glans penis including retraction of foreskin behind the glans penis (Figures 1 and 2). History of the patient revealed that while playing in home, he unintentionally retracted the foreskin and could not reduce it for 8 hours before coming to hospital. When his parents noticed it they immediately took their child to the emergency department. Manuel reduction was attempted using topical anesthetic gel but could not be performed due to huge swelling and intractable edema of the glans penis. Urgent surgical intervention under general anesthesia incluing dorsal slit of the constricting prepuce and a safe circumcision solved the problem (Figure 3). The patient was discharged home in good condition on the first postoperative day.

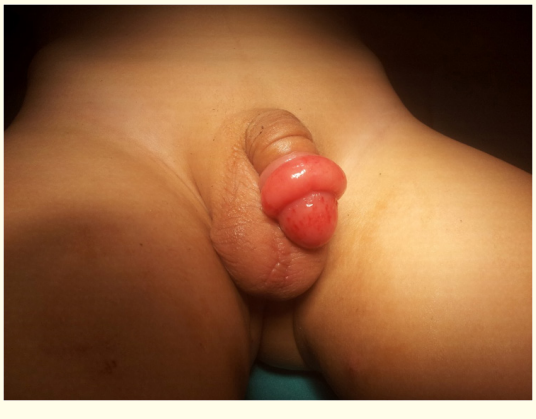

Figure 1: *View form dorsal of paraphimotic penis.*

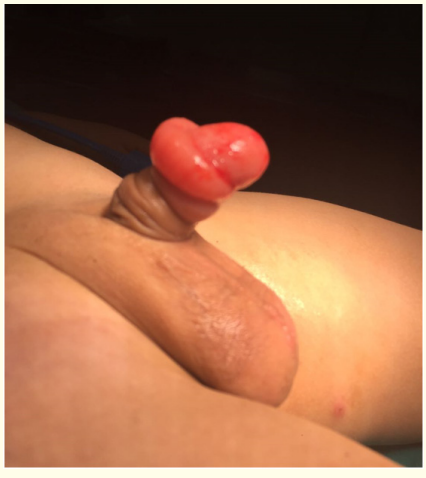

Figure 2: *View form lateral aspect of paraphimotic penis.*

Figure 3: *Postoperative ventral view of penis after circumcision.*

Discussion

As a cause of one of the few urologic emergencies that may be encountered in general practice, PP has been reported to occur 0.7% of uncircumcised boys [1]. PP is observed in uncircumcised males when foreskin is pulled back behind the glans penis and left there for a period of time. Etiology of PP include mostly iatrogenic factors including penile examination, urethral catheterization or cystoscopy and it commonly occurs iatrogenically, when the foreskin is retracted for cleaning, placement of a urinary catheter, a procedure such as a cystoscopy, or for penile examination [3]. Typical presentetation is that, after insertion of foley catheter, health provider forgets to return the retracted foreskin to its original position [4]. Other causes of PP include self inflicted injury to the penis like a piercing a penile ring into the glans and penile erections [5,6]. The reason of PP in our case was unintentional retraction of foreskin by himself during play in home which was noticed by his parents nearly 8 hours after the occurence. If untreated for a prolonged time, constriction of glans penis may impede the blood and lymphatic flow which can give rise to penile ischemia even penile gangrene and autoamputation may follow [7].

The most common symptoms of PP include swelling of the penis, penile pain and unability to pull the foreskin back. As the time passes, the tip of the penis gets dark red or blue in color as in our case. Painful urination and decreased urinary stream may also be observed in patients with PP. Swelling of penis with discoloration of the penile shaft and glans penis was observed in our patient and failure of nonoperative management prompted us to perform urgent dorsal slit including reduction of PP together with a safe circumcision.

Once the diagnosis of PP is made, prompt management is paramount in order to avoid unwanted consequences of tight constriction of glans penis. The aims of management include reducing penile and glans edema and retracting the foreskin back over the glans penis to its original anatomic position. Several noninvasive techniques have been suggested for the management of PP and include manual reduction, pharmacologic therapy including hyaluronidase injection and usage of granulated sugar [8-11]. Because of pain during the procedure, penile nerve block, topical analgesic agents or oral/IV narcotics are often used. In our case topical analgesia with 2% lidocaine gel was used before attempting manual reduction of PP. "Iced glove" technique has also been proposed as an adjunct in reducing PP using a combination of cooling and compression to help decrease penile edema [12]. When these noninvasive measures fail invasive therapy becomes a matter of necessity rather than of choice. These operative procedures include "puncture" technique using hypodermic needle to puncture the edematous prepuce, blood aspiration of the tourniqueted penis and if all these methods fail to reduce PP, emergent dorsal slit with subsequent circumcision should be performed [13-15]. In order to avoid ischemic changes, after an unsuccessful attempt for manual reduction of PP, urgent dorsal slit with circumcision solved the problem in our case.

Conclusion

In conclusion, PP is a rare but an important cause of one of the real urologic emergencies. It has the potential for catastrophic penile injury including ischemia and necrosis of the glans penis. If simple methods for reduction of PP fail urgent surgical intervention should be performed and timely and accurate management of these children is recommended for the preservation of viability for both glans penis and penile shaft. The health providers dealing with such kinds of patients should keep this emergent situation in mind and a prompt pediatric surgical consultation is recommended and the patient should be treated accordingly.

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