

**CONCEALED PENIS AND URINARY RETENTION IN A CHILD WITH SEVERE PHIMOSIS :  
A CASE REPORT  
ENFOUISSEMENT DU PÉNIS ET RÉTENTION D'URINE PAR PHIMOSIS SERRÉ  
CHEZ L'ENFANT : À PROPOS D'UN CAS**

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**Abstract :**

**Background :** Phimosis is a common indication for circumcision. The finding of a concealed penis with significant penile abscess collection and urinary retention in a male infant following circumcision at a peripheral center is indeed a rare occurrence.

**Presentation :** A 1 year old male child was rushed to the Children emergency unit with acute urinary retention, grossly swollen and concealed penis. There was a preceding history of poor urinary stream four weeks following circumcision at a peripheral center. Examination revealed a child in acute urinary retention with a grossly swollen, soft, fluctuant and tender mass concealing his penis. Abdomino pelvic Ultrasound scan revealed a distended urinary bladder with evidence of back pressure effects on both kidneys. He had immediate urinary diversion via a suprapubic cystostomy and subsequently had a re-do circumcision.

**Conclusion :** Poor circumcision techniques can lead to a wide array of complications. Circumcision is better carried out by well trained personnel.

**Keywords:** Concealed penis, urinary retention, phimosis

**Résumé :**

**Résumé :** *Le phimosis est la plus fréquente des indications de circoncision chez le garçon. Rencontrer un enfouissement du pénis, avec un urinome pénien infecté et une rétention d'urine suite à une circoncision est un cas rare.*

**Présentation :** *Il s'agit d'un nourrisson d'un an qui a été reçu aux urgences pédiatriques pour une impossibilité d'uriner, avec une infiltration pénienne. Ce tableau était précédé d'une dysurie depuis 4 semaines au décours d'une circoncision faite dans un centre de santé en périphérie. L'examen physique avait objectivé une rétention aiguë d'urine, avec une importante infiltration pénienne fluctuante, enfouissant complètement le pénis et une masse hypogastrique tendue. L'échographie abdomino-pelvienne avait mis en évidence une distension vésicale et un retentissement sur le haut appareil urinaire. Une cystostomie de dérivation a été réalisée en urgence suivie à distance d'un désenfouissement du pénis et d'une circoncision.*

**Conclusion :** *La maîtrise des techniques de circoncision est obligatoire pour éviter certaines complications, pouvant être dramatiques.*

**Mots clés :** *Enfouissement du pénis, rétention d'urine, phimosis*

## INTRODUCTION

Phimosis refers to clinical condition in which the foreskin cannot be retracted over the glans penis<sup>1, 2</sup>. This could either be physiological or pathological. Physiological phimosis is seen in almost all newborns and the prepuce becomes retractable as the child grows<sup>1, 2</sup>. Pathological phimosis is characterized by scarring of the foreskin usually following surgery, trauma or inflammatory conditions like balanitis xerotica obliterans<sup>1, 3</sup>. It has been found to be a cause of obstructive uropathy and urinary retention in males<sup>4, 5</sup>.

A concealed penis on the other hand is one which may appear minute as a result of being buried in pre-pubic tissues, enclosed in scrotal tissue (penis palmatus), or trapped due to phimosis or a scar following circumcision or trauma<sup>3</sup>. A combination of severe phimosis associated with urinary retention and a concealed penis following a poorly performed circumcision is indeed uncommon. We present in this report a one year old boy with the above complaints managed in the department of Urology, Hopital General de Grand Yoff, Dakar, Senegal.

## CASE REPORT

A 1 year old boy was brought to the Children's Emergency Unit with a history of inability to pass urine and painful supra-pubic swelling. He also had a painful and grossly swollen penis associated with high grade fever. There was preceding history of difficulty with passing urine as well as poor urinary stream of a month duration following circumcision at a peripheral center 4 weeks prior. The circumcision was performed by an inexperienced nurse. There was no history of trauma or foreign body insertion into the penis.

On examination, we found a male infant in painful distress, not pale but febrile. He had a distended and tender bladder. He also has a grossly swollen, soft, tender and fluctuant mass concealing the penis within the pre-pubic tissue and scrotum (penis palmatus). The external urethral meatus was occluded by tight phimosis and digital pressure yielded trickles of purulent effluent.



**Figure 1:** Phimosis with concealed penis

Complete blood count and renal function test were normal. The abdominopelvic ultrasound scan was in keeping with an acute on chronic urinary retention and mild bilateral hydro-ureteronephrosis. A diagnosis of Urinary retention secondary to severe phimosis with penile abscess collection was made.

He had an emergency suprapubic cystostomy (SPC) done to decompress the upper urinary tract and relieve the retention. He was also commenced on a 48 hours course of parenteral antibiotics.

He subsequently had a re-do circumcision using the dorsal slit technique. Intra-operatively, about thirty (30) millilitres of infected purulent urine was found beneath the redundant foreskin and intense scar tissue adhering the foreskin with the glans penis (Figure 2).



**Figure 2:** Infected purulent urine within the foreskin

Excess foreskin was excised and remnant sutured to the corona. The SPC catheter was discontinued. Immediate postoperative condition was satisfactory with a normal voiding (Figure 3 and 4).





Figures 3 & 4: Immediately following re-do circumcision

## DISCUSSION

Circumcision is the commonest surgical procedure worldwide<sup>6, 7</sup>. When executed by untrained personnel could be fraught by various range of complications<sup>8</sup>. Osifo et al. in a retrospective review of 346 boys who presented with circumcision related complications in a tertiary hospital in Southern Nigeria found that untrained personnel executed majority of circumcisions<sup>7</sup>. Urethrocutaneous fistula (73, [21.1%]), redundant prepuce (51, [14.7%]), hemorrhage (46, [13.3%]), glandular injury (33, [9.5%]), glandulopenile adhesion (30, [8.7%]), implantation cyst (10, [2.9%]) were some of the recorded complications.

Phimosis is a rare complication following circumcision. It is the commonest medical indication for circumcision as majority of circumcisions are done on religious, customary or cultural grounds<sup>7, 9</sup>. Few reports have shown significant urinary retention and upper tract affection secondary to severe phimosis, however these were found in teenagers and not in infant as in this report<sup>4, 5</sup>. This further confirms the severity of this post-circumcision phimosis. The urinary retention necessitated an emergency suprapubic cystostomy and subsequent re-do circumcision as shown above.

The concealed penis was a result of significant collection of infected urine within the foreskin as a result of the phimotic obstruction. Differential diagnosis of an amputated glans penis was actually being entertained prior to surgery, this is a known complication of circumcision<sup>7</sup>.

Surgery is the treatment of choice for pathological phimosis<sup>10</sup>. Researchers have studied the use of steroids in treatment of physiological phimosis and recorded some success<sup>1, 11</sup>. Dorsal slit is the surgical technique of choice<sup>4, 10</sup>.

## CONCLUSION

Circumcision should be reserved for trained personnel. Complications like pathological phimosis, urinary retention and concealed penis are possible consequences. A high index of suspicion prompt uri-

nary diversion and re-do circumcision are critical to ensure a healthy child.

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