

Research

# Penile Entrapment Syndrome in Young Children

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## ABSTRACT

### Introduction

Entrapment syndromes can occur in extremities like the genitalia, the penis, toes and fingers and mostly due to hair shed by the mother mostly in young children but may be other materials are involved specially in adults. Penile hair Entrapment syndrome is an uncommon health problem that leads to devastating injuries to the urethra and penis including urethral fistula up to urethral complete transection and penile injury up to penile amputation. We are going to discuss our experience with the problem.

### Materials and Methods

All 15 patients between 2018 and 2020 had been operated upon for various degrees of Penile hair Entrapment syndrome from simple single urethral fistula, and complete urethral transection, their ages ranged between 1.5 years to 4.6 years. Follow up ranged between 6 months to 1.4 years. Each patient was investigated and examined at the emergency room for other entrapment syndromes and the causative agent was removed and the patients were admitted for managing their urethral and penile injuries.

### Results

All 15 patient but 1 had complete healing with fistula healing and normal voiding with no meatal stenosis or urethral diverticulum. One patient had incomplete urethral Closure with redo operation and fistula closure.

### Discussion

There are multiple reports and literature that address the problem yet nobody took into account how to prevent it. There should be public awareness about the problem, the mother should examine her child for any entrapment syndrome and if any suspicious finding she should seek medical advice.

### Conclusion

Penile entrapment syndromes are uncommon urological health problems that can face the urologist but he should be aware of the problem that can affect young children and he should put in mind the problem to manage it as early as possible to prevent further damage of the valuable urethra and penis.

**Keywords:** Children; Hair tie; Penile.

## INTRODUCTION

Entrapment syndromes can occur in extremities like the genitalia, the penis, toes and fingers and mostly due to hair shed by the mother specially in young children . Hair of the mother gradually tighten around the penis producing pressure necrosis and cut through the skin and the subcutaneous urethra leading to various degrees of urethrocutaneous fistula and penile injury. Other materials may be involved in adults such as horse hair c.<sup>1,2</sup>

Penile hair Entrapment syndrome is an uncommon health problem that leads to devastating injuries to the urethra and penis including urethral fistula up to urethral complete transection penile injury up to penile amputation there are multiple reports about the problem ,that address the topic and explain how to manage it,<sup>1-6</sup> yet no one stressed the importance of preventing it and if it happens early and efficient management. Penile entrapment syndromes occur in otherwise healthy tissues so early discovery mostly leads to complete healing of the problem.

We are going to discuss our experience with the problem and others experience as well and to get recommendations on how to avoid it and if it occurs how to manage the urological aspect of the problem.

## MATERIALS AND METHODS

All 15 patients between 2018 and 2020 had been operated upon for various degrees of Penile hair Entrapment syndrome from simple single urethrocutaneous fistula (Figure 1), to complete urethral transection. Their ages ranged between 1.5 years to 4.6 years . follow up ranged between 6 months to 1.4 years.

Figure 1. Simple urethrocutaneous fistula



Each patient was investigated and examined at the emergency room for other entrapment syndromes and the causative agent was removed and the patients were admitted for managing their urethral and penile injuries.

### Managing their Urethral Injuries Including

Simple urethral fistula is managed by fistula dissection and fistulectomy and then closure of the urethral defect followed by defect coverage by Dartos fascia then closure of the skin (Figure 2, 3, and 4).

Figure 2. Dissection of the fistulous tract



Figure 3. After fistulectomy



Figure 4. Fistula closure and Dartos flap cover



Complete urethral transection were managed by a ventral skin flap that was dissected and inverted to cover the urethral defect after freshening of edges of the skin, the urethra and removing any dead or with doubtful vascularity and again Dartos fascia coverage and skin closure (Figure 4).

In between degrees of injuries were managed as the simple urethral fistula

## RESULTS

All 15 patient but 1 had complete healing with fistula healing and normal voiding with no meatal stenosis or urethral diverticulum.

One patient had incomplete urethral Closure with redo operation and fistula closure.

## DISCUSSION

There are multiple reports and literature that address the problem yet nobody took into account how to prevent it. .and if happened could be public awareness about the problem, the mother should examine her child for any entrapment syndrome and if any suspicious finding she should seek medical advice. Penile entrapment syndromes when it happens happens in an otherwise healthy tissue so its early management warrants good healing and excellent outcome.<sup>1-4</sup>

Managing the urethral or penile involvement from simple urethral fistula closure to complete urethral bisection with urethral reconstruction and closure with dartos fascia coverage and skin closure (Figures 1, 2, 3, and 4) to the rare complete penile amputation.<sup>5-7</sup>

We elected to do simple fistula dissection, fistulectomy and urethral closure with dartos fascia coverage for better healing and to do ventral skin flap, ventral urethra edges freshening with flap dissection that was rolled over and the flap is stitshed to the urethral remanent with dartos fascia coverage to ensure better healing. Entrapment- syndrome is one of the entrapment syndromes that can occur in the body with devastating results that can occur if ignored and public c and mothers awareness of the problem is a must to avoid its horrible results.<sup>8,9</sup>

## CONCLUSION

Penile entrapment syndromes are uncommon urological health prob-

lems that can face the urologist but he should be aware of the problem that can affect young children and he should put in mind the problem to manage it as early as possible to prevent further damage of the valuable urethra and penis.

## CONFLICTS OF INTEREST

None.

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