

## Two Case with Tourniquet Syndrome

İki Olgu Sunumu: Turnike Sendromu

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### Abstract

The Hair-Thread Tourniquet syndrome is a rare and dangerous, but preventable condition. Involvements of the genitalia, such as of the penis and clitoris, have been reported as well as that of the fingers and toes. We report two patients: a 4-year-old girl with swelling of her 4<sup>th</sup> finger of the right foot and a 2-month-old infant with swelling of the 3<sup>rd</sup> and 4<sup>th</sup> fingers of the right foot. The time interval between the initiation and removal of the hair-thread is critical. Clinical presentation may vary from simple oedema to ulceration, necrosis, and amputation of the organ. Emergency physicians should consider tourniquet syndrome for children with unexplained restlessness.

(*JAEM 2013; 12: 220-1*)

**Key words:** Tourniquet syndrome, hair tourniquet, restless children

### Özet

Saç-iplik turnike sendromu nadir, tehlikeli fakat önlenebilir bir durumdur. El ve ayak parmakları dışında, penis ve klitoris gibi genital organ tutulumları bildirilmiştir. Bu raporda sağ ayak baş parmağında şişlik şikâyeti olan 4 yaşında kız ve sağ 3 ve 4. parmağında şişlik şikâyeti olan 2 aylık erkek bebek sunulmaktadır. Olayın gelişimi ve saç-ipliğin uzaklaştırılması arasında geçen süre önemlidir. Klinik basit bir ödemden ülserasyon, nekroz ve uzvun amputasyonuna kadar değişebilir. Acil hekimleri nedeni açıklanamayan huzursuzluğu olan bir çocukta turnike sendromunu düşünmelidir. (*JAEM 2013; 12: 220-1*)

**Anahtar kelimeler:** Turnike sendromu, saç turnikesi, huzursuz çocuk

### Introduction

The Hair-Thread Tourniquet syndrome is a rare and dangerous, but preventable condition. Genital involvement, such as of the penis and clitoris, has been reported, as well as that of the fingers and toes. The first account of hair strangulation was reported in a 4-week-old infant in 1832 (1-6). This report presents two paediatric cases referred to our emergency department with complaints of restlessness, which were diagnosed with tourniquet syndrome.

### Case Report

We report two patients: a 4-year-old girl with swelling of her 4<sup>th</sup> finger of the right foot and a 2-month-old infant with swelling of the 3<sup>rd</sup> and 4<sup>th</sup> fingers of the right foot (Figure 1). Both families reported their children to be restless. Both children had a constrictive band at the level of the proximal interphalangeal joint, as well as associated erythema and severe distal swelling. The tip of the band was held with a porte-aiguille, rotated around the finger(s), and removed. Both foreign objects were hairs. There were no vascular complications 12 hours after relief of the fingers.

### Discussion

Clinical progress for tourniquet syndrome may vary from a simple oedema to ulceration, and even to amputation (1-10). Tourniquet syndrome should be considered in case of restlessness, constant crying, swelling and redness of the fingertips, pain of the genitalia, recurrent urinary infections, erythematous and painful clitoris, swollen and painful vulva, and urethrocutaneous fistula on the glans or neck of the penis (2-6).

The Hair-Thread Tourniquet syndrome and infection, trauma and congenital fibrotic bands all present with similar clinical pictures and are difficult to differentiate (2, 7). Although most cases occur accidentally, the family and the child should be monitored for abuse. Localisation according to the age and presence of knots should be indicators of abuse (8). This condition also appears after wrapping these areas with hair or thread as a result of superstitious or folkloric beliefs (1, 2).

Successful results have been reported for the hair-thread tourniquet syndrome following early diagnosis. Surgical intervention should be considered when a simple intervention of turning the thread or hair around its axis with a porte-aiguille is not successful.



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**Figure 1. a.** Right foot of the first patient before removal; **b, c.** Right foot of the second patient before and 12 hours after removal

However, there are reports of cases that have been successfully treated with a depilatory cream in the literature. Using one or two horizontal, short, and deep cuts along the hair line on the dorsal side of the affected finger/toe is recommended for surgical intervention. If such surgical intervention is not successful, serial Z-plasty operations may be performed (2, 4, 7, 9, 10).

## Conclusion

The Hair-Tourniquet Syndrome is a rare syndrome where positive results are obtained with early diagnosis and treatment. This syndrome should be considered for all children admitted to the ED due to unexplained restlessness; these children should be monitored for abuse.

## Conflict of Interest

No conflict of interest was declared by the authors.

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## Author Contributions

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## Çıkar Çatışması

Yazarlar herhangi bir çıkar çatışması bildirmemişlerdir.

**Hakem değerlendirmesi:** Dış bağımsız.

## Yazar Katkıları

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