

## Hair Tourniquet around Labia Majora: A Case Report and Literature Review

Mohammed Alsmadi MD\*, Mohamad AlAtiyat, MD, Salim Masadeh, MD, FirasAlsmadi, MD and Sohaib Al-hourani, MD

Radiology Department, Queen Rania hospital for children, Royal medical services, Amman, Jordan

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\*Corresponding author: Mohammed Alsmadi

Pediatric Radiologist, Head of Radiology Department, Queen Rania hospital for children, Royal medical services, Amman, Jordan

### Abstract

### Case Report

Hair tourniquet syndrome (HTS) is a condition where the hair or thread wrapped around part of the body accidentally. Commonly found around the toe but it can occasionally be found around the fingers, external genitalia and anywhere else. Here in our case we want to mention the importance of proper exam of the genitalia especially if the patient has chronic pain and tenderness at the genital area to exclude hair tourniquet as one of the differential diagnosis.

**Keywords:** Hair Tourniquet, Labia Majora.

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## INTRODUCTION

Hair tourniquet syndrome (HTS) was recognized at the 17<sup>th</sup> century when a hair was reported as strangulating the glans penis. A case was officially published (The Lancet) as long ago as 1832, and after that many cases have been well-established in medical literature.

## CASE REPORT

We are presenting a 13 year old female with no significant past medical or surgical history, presented to the emergency department three times before as a case of genital area pain without urinary tract infection or vaginal discharge. Accordingly, she was transferred to the dermatology clinic for further investigation. Close

observation of the area illustrate that the patient has a mass which was tender on examination (figure 1). Later, the dermatology team sent a consult to the surgery team for possible excision and biopsy. The patient was scheduled for examination under general anesthesia. Intraoperative finding revealed the presence of hair string around the labia majora (figure 2, 3) which made the area tender and swollen before. After which the mass was excised and sent for histopathology. The histopathology report revealed that this mass was 1.4\*1.1\*1.1cm and the final diagnose was fibro epithelial polyp with focal ulceration and entrapped with hair shaft at its base. The patient course of admission after the surgery was smooth as the pain subsided and she was discharged home one day after.



Fig-1: showed labial oedema at the right lower border



**Fig-2: Showed hair tourniquet around the labia majora**



**Fig-3: Showed hair tourniquet around the labia majora**

## DISCUSSION

Hair tourniquet syndrome (HTS) is one of the least common pathologies which can be found accidentally by parents, children themselves or at the clinic. It was reported about 0.02%. The most common sites is fingers and toes but it can be found anywhere else like external genitalia [1, 2]. The most common age group for this condition is from 4 days to 19 months of life, most of which are presented at two months of age [2, 3].

As HTS is one of the rare diseases, a full patient history and careful examination are the corner stones to reach the proper diagnosis and to rule out

other pathologies like amniotic band syndrome (a rare congenital condition that is associated with other musculoskeletal disorders), infection, insect bites, trauma and allergy. Beside, the healthcare provider supposed to be familiar with these cases.

The pathophysiology of HTS started by circumferential occlusion of end organ for example digit, toe, penis and vulva. This occlusion initially causes lymphatic and venous obstruction which are revealed by the edema and pain associated with this condition. Consequently, prolonged venous and lymphatic obstruction will lead to arterial ischemia which finally may end with gangrene and auto-amputation [4, 5]. Importantly, the duration of ischemia varies between hours to weeks [6].

In relation to our case, a lot of presentations are delayed as the pain in the genital area makes the patient embarrassed regardless of whether the hair thread is around the clitoris or the labia as in our case [11]. In rare situations the hair thread maybe coiled around the penis in males and devastating complications could result [12]. A delay about 3-4 days before recognition is the usual scenario [7]. Side by side, the neo epithelized tissue around the penetrating hair or thread makes the diagnosis more difficult by time [8, 9].

Regarding the management, early administration of painkiller along with careful examination sometimes, magnified glasses could play a good role. Once the diagnosis of HTS is established mechanical removal of the constricting band is warranted with or without local anesthesia. Sometimes, the deeply imbedded thread beside the edematous skin makes the removal difficult for which examination under anesthesia is mandatory. In case of delayed presentation amputation versus debridement may be required [7, 8, 10].

## CONCLUSION

Hair tourniquet is one of the most important emergencies. It can involve and wrap any end organ like fingers, toes, labia and penis. Early detection makes the management and treatment is a quite simple one. But if it is missed, it may lead to tragic complication like gangrene, amputation of digit and sepsis. As a result, learning the medical stuff at the emergency room along with the mothers how the careful exam of the whole body is very important and vital.

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