



## Letters to the Editor and Brief Communications

### Hair-Thread-Tourniquet Syndrome

Sir,

Acquired constriction bands of the extremities are rare and may be caused by strangulation with external agents like a hair or thread or due to circumferential scars (as can occur following burns). Irrespective of the cause, constriction bands tend to behave in a predictable fashion, and lead to serious complications. The aim of this letter is to present an unusual case of hair-thread-tourniquet syndrome. The early diagnosis of this syndrome followed by prompt and appropriate treatment is mandatory to provide a satisfactory outcome.

The hair thread tourniquet syndrome though known since 1832, was first given its name by Barton et al<sup>1</sup>. It has also been established that more often than not, this condition goes unrecognized and has on occasion resulted in gangrene.<sup>1,3</sup> So far, 17 cases of finger involvement have been described in English literature.<sup>1,3</sup> A review of literature of all types of such strangulation revealed that 80% occurred in children lesser than 2 months of age. The incidence in fingers was 24% while 43% involved the toes and 33% involved the external genitalia. In the hand, the middle finger was most frequently involved (40%), 56% of the reviewed cases had complications such as tissue loss or flexion deformities and about 50% resulted in amputation. It has also been mentioned that child abuse has to be strongly suspected in patients with this syndrome particularly when involving the genitalia.<sup>2,4,6</sup> Further depending on the etiology, the syndrome has been classified into four types: accidental, incidental, intentional and indeterminate<sup>4</sup>. The

present case (Fig 1) an 8-month-old female child, was brought with a constriction around the right middle finger. The child had accidentally wound a piece of thread from her mother's dress about three months ago. The thread was apparently removed by a general practitioner. Examination revealed a  $\frac{3}{4}$  circumferential eschar around the dorsal aspect of the distal interphalangeal crease of the right middle finger. The fingertip was congested and tender. At surgery, removal of the eschar revealed a completely epithelialized deep crease. This was excised and the resulting defect closed by multiple z-plasty.

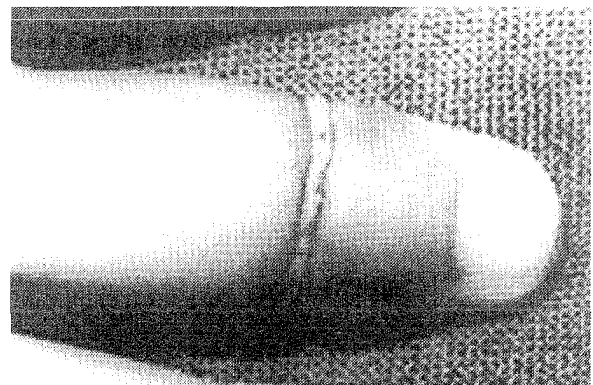


Fig 1. Hair Thread Tourniquet syndrome showing constriction around the right middle finger in an 8 - month-old female child

In all previous reports, the offending fiber was found either in an eschar or buried subcutaneously. This was attributed to the peculiar quality displayed by hair and some fibers which show property of stretching when wet and contracting when dry<sup>4</sup>. None of the cases, except that reported by Kumar<sup>7</sup> et al, so far mention epithelialization of the constriction band. The present case revealed this unique finding after the removal of

eschar. Consequently, all other cases appear to have healed following mere removal of the offending hair or thread and sometimes followed by a dorsal longitudinal incision to split the band.<sup>1,4,8</sup> In the present case the epithelialized constriction band, which very much resembled that seen in congenital amniotic bands required excision as mere removal of the eschar failed to relieve the constriction.

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