Hair Tourniquet Strangulation of Penis

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Strangulation of the penis by coil of hair is very uncommon. Left as such it can produce varying grades of injury to skin, urethra and glans. Simple removal of hair coil at early stage can prevent the dreadful complication. The author describes a series of 9 boys who presented with hair coil strangulation of penis. Four boys had superficial skin injury. The rest five presented with urethral fistula at the corona glandis. One stage repair was done in all cases with good results for repair of fistula. Overview of the literature and surgical technique is discussed.

Key Words: Hair coil strangulation, penis, urethral fistula.

Strangulation of penis by various objects such as rings, bottles, bands etc. are described in the literature. Diagnosis in all these incidences is forthcoming. Tourniquet strangulation by hair is uncommon and except for one series of 17 cases only isolated cases have been reported in the literature. We present study of 9 children seen over a period of 5 years for hair tourniquet syndrome. The delay in presentation and the resultant catastrophic sequele are discussed.

Material and Methods

Nine boys, all circumcised presented with hair coil strangulation of the penis. Eight were Muslims and one was Christian. All belonged to central part of the city of Lahore. The age at presentation was 3-8 years (Average 5 years).

Most of the patients presented within 10 days of the injury. The delay in presentation varied from 3 days to 2 months. Symptomotology is presented in the following table:-

Table No 1: Symptomotology Hair Tourniquet Strangulation

Sr. No.	Symptom	No. of Patients
1	Pain/swelling of glans and distal shaft	09
2	Purulent discharge from corona glandis	08
3	Urine leakage	05
4	Dysuria	09

After sedation every child was examined in proper illumination. Area of coronal sulcus was gently spread open. In every case a long strand of human hair was located, carefully unwound and removed. Every child was given broad spectrum antibiotics and pain killers. Sitz bath and local antiseptic treatment were also instituted. Treatment was continued until the swelling and infection fully subsided. The children having only skin and superficial glandular injury were discharged. After establishing bacteria free urine culture single stage repair was done for the urethral fistula using 5/0 vicryl (Ethicon Inc) over a stent which was removed after 72 hours.

Results

Only one child had minor urinary leak after repair of fistula. This leak settled after dilatation of the urethra. The rest of the boys had good stream with no element of dysuria or straining at micturition.

Discussion

Human hair have been incriminated in the aetiology of disease processes such as pilonidal sinus[1] and trichobezoar[2]. Strangulation of the penis by coil of hair certainly appears to be a bizarre addition to this list. Least expected to be the causative agent the hair strand can go unnoticed for a long time. The severity of the injury is directly related to the duration of strangulation. Bashir et al[3] have graded the injury from 0 (only skin involvement) to 3 (glans gangrenous leading to auto-amputation). Because of the swelling and pain almost always some inflammatory lesion is diagnosed. Antibiotics, pain killers, anti-inflammatory agents and local antiseptic applications are always used in various combination with no relief. Hair strangulation is usually not suspected.

The condition is more common in circumcised boys. In the largest reported study of 17 cases by Bashir et al3, 15 out of 17 had been recently circumcised. They postulated that the hair accidentally adhered to the wet wound of circumcision. Later on it produced granulation reaction with subsequent strangulation. None of our boys was recently circumcised as is shown in the series of 15 cases by Kirtane and Sammuel[4].

None of our patients and their parents could explain the presence of hair around the penis. Sheinfeld et al[5] has reported a case where the hair was tied around the penis to control nocturnal enuresis. Hadded and others have also reported isolated cases but no one can exactly ascertain the pathogenesis of the hair torniquet syndrome[6,7].

The technique used for the repair of fistula is the same as described for post-circumcision fistula by Azmy et al[8]. Bashir et al[3] has advised a delay of 6 months before embarking upon surgery. In our experience repair can be

done early when the swelling and infection is fully controlled.

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