Strangulation of penis by prolonged concealed hair wrapping

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Summary. Penile strangulation is very infrequent but when delayed it is impressively difficult to treat completely. We report a case of a 12-year-old boy with penile strangulation and a urethral fistula due to long-standing hair wrapping. The reconstruction was achieved by a two-stage technique.

Key words: Hair strangulation of penis – Penile tourniquet injury

Penile strangulation by a constrictive band of hair is rare; most of the cases require only removal of hair and conservative management if recognition is early [1]. Delayed cases of strangulation can cause extensive damage to the corporal bodies, corpus spongiosum and urethra [2, 3]. Although this type of injury has been reported previously, we have not found any as severe as ours and its reconstruction [4]. We report a case suffering from prolonged concealed hair wrapping of the glans penis with accompanying urethral fistula and the technique used for successful reconstruction.

Case report

A 12-year-old boy presented with subtotal distal penile amputation and a coronal urethral fistula of 3-month-duration. Examination showed hair to be tightly entwined around the coronal sulcus. The cause of hair wrapping could not be understood. There was an extensive and deepithelialized groove at the coronal sulcus and proximal part of the glans. Only a 4 mm wide epithelialized tissue bridge between the glans and the shaft remained (Fig. 1). The glans skin was pale and edematous. The granular urethra was intact but the corpus spongiosum had been completely transected under the strangulated coronal sulcus and there was an anterior urethral fistula in this area.

Three weeks later, the second stage was performed. A urinary catheter was placed from the external orifice through the fistula and into the penile urethra. An epithelial strip was dissected 5 mm away from the fistula and tissue-bridge throughout the strangulation groove (Fig. 2). Then this epithelial strip was formed into a tube with interrupted 5/0 chromic sutures, so that a completely circular neourethra, connected to the urethra via the fistula, was constructed. The urethral catheter was left as a stent. The remaining areas of the groove at the coronal sulcus were deepithelialized, then the cicatricial edge of penile skin was trimmed and degloved down to the midshaft, so the sleeve of the penile skin was brought forward and sutured with interrupted 5/0 PDS to the deepithelialized granular margins. Recovery was excellent. The urethral stent was removed 10 days later. Voiding caliber and strength were normal, thus the suprapubic cystostomy was removed (Fig. 3). A urethrogram taken 3 months later showed no evidence of leak (Fig. 4). The appearance of penis was normal (Fig. 5).

Discussion

Penile strangulation by concealed hair wrapping is very rare. Hair wrapping for accidental or intentional constriction of penis cannot easily be detected because hair is concealed between the edematous and inflamed skin folds. This is the reason for delayed cases such as ours. Long-standing constriction can cause severe damage to the penile corporal bodies, corpus spongiosum and urethra. This type of injury resulted in subtotal penile amputation and urethral fistula in our case and there was only a 4 mm-wide epithelialized tissue bridge between glans and shaft serving as the vascular pedicle. The viability of glans was possibly due to an intact distal branch of urethral artery. Because of the depth of the strangulation groove, the continuity of the dorsal penile arteries was

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