

PROSPECTIVE EVALUATION OF THE USE OF POST-AURICULAR SKIN GRAFT FOR CRIPPLED HYPOSPADIAS

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Introduction

The term hypospadias is derived from the Greek words hypo meaning below and spadone meaning hole. Hypospadias in males is associated with three anomalies of the penis: (1) a ventral meatus that may be located anywhere between the glans and the perineum, (2) ventral deviation of the penis (chordee) and (3) the dorsal prepuce hood in association with a ventral deficit of the prepuce. The second and third abnormalities are not necessary for the diagnosis of hypospadias. One particular form is hypospadias without hypospadias, in which the meatus is found in the glans. A further distinctive form is megalomeatus, in which the meatus is found in a coronal position, while the fossa navicularis is open, and the prepuce is intact. The ‘**crippled hypospadias**’ has been coined for individuals with remaining functional complications after previous hypospadias repair. Men have a very heavy burden of psychological problems related to the complications of failed hypospadias repair.

Aim of the work

The aim of the study was to evaluate the use of post auricular skin graft for crippled hypospadias repair in a prospective manner.

Patients and Methods

This prospective study was carried out in the period of one year at Alexandria Main University Hospital and Smouha teaching Hospital Urology department, Alexandria, Egypt. A total of 16 patients were enrolled in the study. After approval of local ethical committee and obtaining a written informed consent from each patient, all patients were subjected to: Clinical assessment (Detailed history include demographic data: Age, previous operations, position of the meatus, pre-operative chordee, length of the urethral defect, cm), intra operative assessment, post-operative assessment (graft take), during follow up: Cosmetic appearance of the penis was assessed, donor site morbidity, recipient site complications (glanular dehiscence, fistulas, strictures), urinary functional and patient reported outcomes.

Results

Post-auricular skin grafts demonstrated a high graft take rate of 100% with relatively low complication rates. Cases with scarring at donor site were 2(12.5%) while cases with good donor site morbidity were 14(87.5%). All of the cases had no complications at recipient site after first stage. Regarding complications after second stage, cases with no complications were 15(93.8%) where by 1(6.2%) had glanular dehiscence. Regarding final results, it was found that 1(6.2%) case was unsatisfied with cosmetic appearance of the penis and satisfied cases were 15(93.8%). All cases had normal urinary function 16(100%).

Table (1): Distribution of the studied cases according to different parameters during follow up (n = 16)

Follow Up	No.	%
Donor site morbidity		
Scarring	2	12.5
Good	14	87.5
Recipient site complications after first stage	0	0.0
Complete reoperation	16	100.0
Complications after second stage		
No complications	15	93.8
Glanular dehiscence	1	6.2

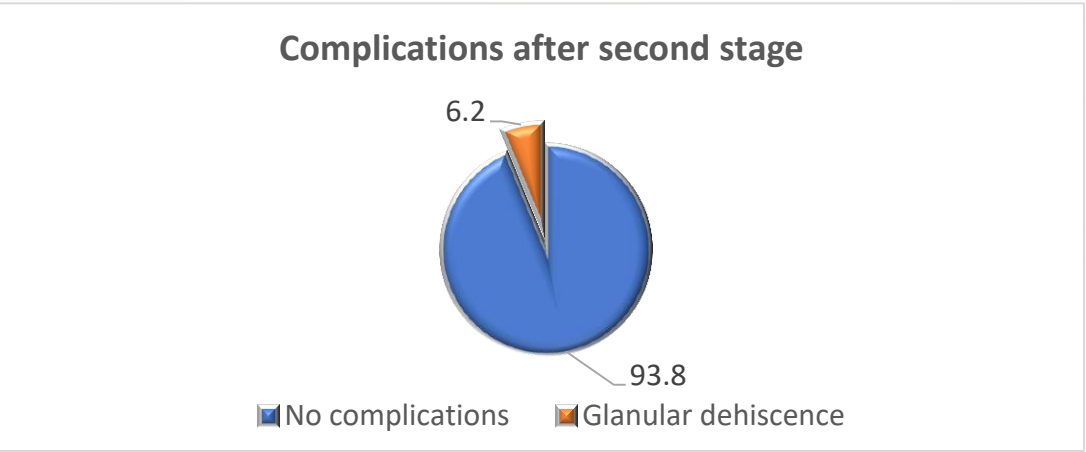


Figure (1): Distribution of the studied cases according to complications after second stage

Table (2): Distribution of the studied cases according to final results (n = 16)

Final Results	No.	%
Cosmetic appearance		
Unsatisfied	1	6.2
Satisfied	15	93.8
Urinary function (Normal)	16	100.0

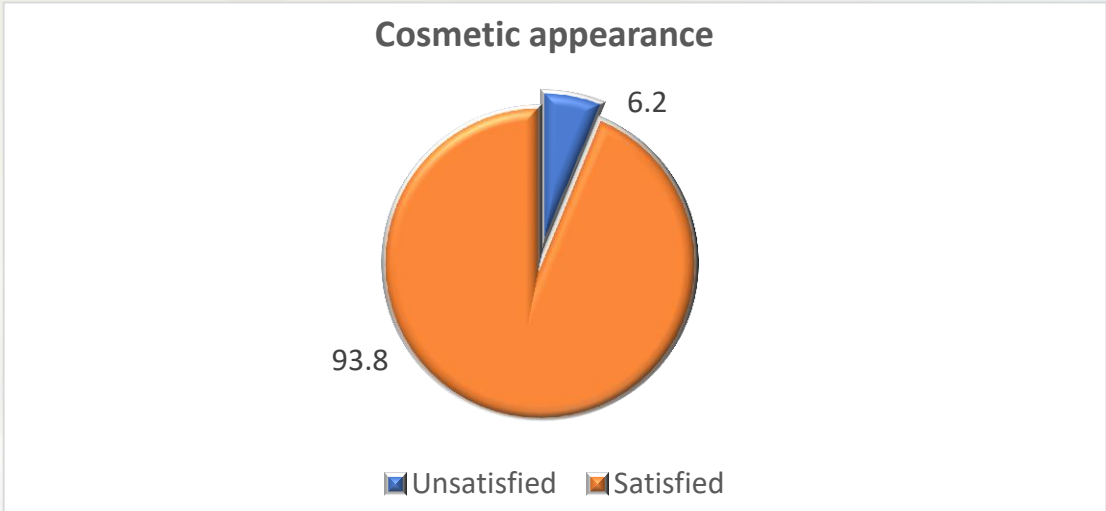


Figure (2): Distribution of the studied cases according to cosmetic appearance

Conclusion

Our study concluded that post-auricular skin graft for correction of crippled hypospadias is a safe, viable and durable procedure offering low morbidity and excellent cosmetic results. It is advocated that post-auricular skin graft should be used as the technique for treatment of crippled hypospadias. Further research with larger, multi-center studies is recommended to confirm these findings and assess long-term outcomes..