

Megameatus Intact Prepuce in a Two Years Old Boy in Katsina Northwestern Nigeria

Muhammad Ujudud Musa^{1}, Abdulkadir Abubakar², Sharfuddeen Abbas Mashi², Bashir Yunusa²*

¹*Urology Unit, Surgery Department Federal Medical Centre Katsina, Katsina State Nigeria*

²*Urology Unit, Surgery Department Aminu Kano Teaching Hospital, Kano State Nigeria*

**Corresponding author: Muhammad Ujudud Musa, Head of Urology Unit, Surgery Department Federal Medical Centre, Katsina P.M.B 2121, Katsina State, Nigeria. Tel: +2348036005365; +2349028922249; Email: ujudud@gmail.com*

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Abstract

Megameatus Intact Prepuce (MIP) is a rare variant of glandular hypospadias seen is about 3-6% of cases of hypospadias, in 1983 the first description was done by Juskiwenski et al and in 1989 Duckett and Keating described pyramid procedure, In 2011 Elbatarny et al reported modified Glanular Approximation Procedure (GAP) for seventeen patients.

Our patient was 2-years-old Boy who presented with an abnormal external urethral meatal opening 6cm in diameter for which he had modified glanular approximation procedure (GAP) with an excellent outcome.

Our patient had modified Glanular Approximation Procedure (GAP) with excision of the redundant skin as described by Elbatarny et al (6) and we use size 6French Foleys catheter as a stent as described by Gittes et al, we monitor our patient for six months with an excellent out comes as reported by Zaontz et al and Gittes et al.

Megameatus intact prepuce is indeed a social emergency that must be corrected as early as possible in order to avert the devastating psychological disturbance associated with it.

Keywords: Hypospadias; Management; Megameatus Intact Prepuce

Introduction

Megameatus Intact Prepuce (MIP) is a rare variant of glandular hypospadias seen is about 3-6% of cases of hypospadias even though this percentage is a tip of an iceberg, as some of the cases of Megameatus intact prepuce may not present to the hospital, diagnosis missed or the MIP is not deemed clinically significant and hence under reported [1,2,3] Hypospadias is an abnormal ventral urethral opening short of the normal glandular opening, the abnormal opening could be found along the penis, the scrotum or in the perineum and the more proximal the opening the severe is the hypospadias and the more the patient will present with ventral chordee, hooding and abortive corpus spongiosum [3,1].

There is paucity of review articles on this variant of hypospadias and its management, in 1983 the first description of Megameatus intact prepuce was done by Juskiewenski et al (2) and in 1989 Duckett and Keating described presentation and surgical management of Megameatus intact prepuce tagged pyramid procedure [1]. In 2011 Elbatarny et al reported modified Glanular Approximation Procedure (GAP) in surgical management of seventeen patients with Megameatus intact prepuce with an excellent outcome in fourteen patients with a subjective score ranging from [4,5] the etiology of Megameatus intact prepuce is yet to be fully understood however interplay of environmental, genetic and endocrinological factors are found to be responsible for the development of Megameatus intact prepuce, and the goal of treatment is to restore function, cosmesis and to alleviate psychological disturbance to the patient, parents and relatives [6,7,8,9].

Case Description

A 2-years-old Hausa Muslim Boy who was referred from a peripheral hospital on account of a five days history of an abnormal external urethral meatal opening notice after circumcision, there is no history of similar illness in the family no history of trauma prior to the presentation.

On examination he was calm and cooperative boy not pale or dehydrated Abdomen was full moving with respiration, no renal or suprapubic tenderness external genitalia examination reveals abnormally wide external urethra meatus measuring about six centimeter in diameter, exposing the urethral mucosa compressing the glans, the scrotum is well developed with preserved rugosity figure 1.



Figure 1: Showing the wide urethral meatus exposing the urethral mucosa.

The patient was prepared and a u shaped incision was made on the Megameatus over a size 6 F Foleys urethral catheter, and the glanular wings were dissected and the dartos fascia was interposed using vicryl 4/0 we did a modified Glanular Approximation Procedure (GAP) with the excision of the redundant urethral plate, the aim of achieving a conical glans with a vertical slit and tip-cited meatus was successful and the penile skin was sutured with nylon 3/0 figure 2.



Figure 2: Immediate post op with the excised redundant skin sutured with nylon 2/0.

The patient did well and was discharged home five days post operatively, six months after the surgery the child was making straight stream urine with satisfactory conical glans Figure 3.



Figure 3: six months post op.

Discussion

Megameatus Intact Prepuce (MIP) is a rare variant of hypospadias which if not treated early the psychological trauma to the parents, the child and indeed the relatives is better imaged than managed, therefore early repair is paramount in the management of these patients, to curtail the psychological disturbances associated with this condition.

The unique anatomy of megameatus intact prepuce necessitates the development of multiple surgical techniques that will produce the conical shaped glans that is functionally and cosmetically acceptable to the patient.

Many surgical techniques were described and modification of some original procedures were also described, Duckett JW et al put forward the fact that the suboptimal outcomes reported using the perimeatal-based flap and the meatal advancement and glanuloplasty surgical techniques, that are generally suitable for other variants of hypospadias, give birth to the development of techniques specific to the megameatus intact prepuce and hence he described pyramidal procedure in 1989 [5,6,10], Marc Cendron described the use of Inframeatal Vascularised Flap Technique for the surgical correction of MIP [1].

Our patient had modified Glanular Approximation Procedure (GAP) with excision of the redundant skin as described by Elbatarny et al [6], he was circumcised prior to presentation so we used the dartos fascia as an interposition and we use size 6French Foleys catheter as a stent in our patient as described by Gittes et al and Elbatarny et al [6,11], we monitor our patient for six months with an excellent functional and cosmetic out comes as reported by Zaontz et al and Gittes et al [11,12].

Conclusion

Megameatus intact prepuce is a rare variant of hypospadias it is indeed a social emergency that must be corrected as early as possible in order to avert the devastating psychological disturbance associated with it, our patient had a modified glanular approximation procedure with an excellent result.

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