



A Novel Technique of Decircumcision

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Introduction

Decircumcision, or foreskin reconstruction is a process reconstructing the missing foreskin owing to circumcision. Here we describe a novel method of foreskin restoration in a young male patient by use of islanded fasciocutaneous flap. The technique has the advantage of a one stage reconstruction of this unique defect.

Introduction

Decircumcision, or foreskin reconstruction is a process reconstructing the missing foreskin owing to circumcision. Since loss of penile foreskin has tremendous psychological and religious implications, acircumcision or decircumcision is a much discussed topic historically. Since its introduction by Celsus (25 BC to 50 AD) to the various non surgical and surgical methods described by modern day authors, the techniques of decircumcision have been varied with varied results.

Here we describe a novel method of decircumcision by using an islanded fasciocutaneous flap.

Case Report

A 37 years old male, priest by profession, presented to us with circumcised penis, requesting decircumcision.(Fig 1) The patient had presented 2 years earlier in the emergency with paraphimosis for which he underwent a circumcision procedure.

The patient being a part of the Hindu priest society and as the norms of his priesthood society requires them to have intact foreskin, the patient requested for the same. The patient underwent counseling and was also given the choice of taking an alternative occupation. But as he belonged to a family of priests, he was quite determined to get the procedure done.

On local examination, the penile shaft and glans found intact. No deformity seen.

After optimizing the patient for surgery, the patient was taken under spinal anaesthesia after prior consent. The part was prepared including the left thigh which was prepared for split skin harvest.

Procedure

Saline was injected in to the glans to cause turgor and a tourniquet placed at the root of the penis. Stay sutures taken at the corners of the skin and corona for retraction. The Penile skin was degloved in the usual manner done for hypospadias leaving a circular skin collar around to form the inner prepuce. Then another skin only incision was given around 3.5 cm proximal to the collar incision and the whole skin island with dartos fascia attached on the underside was advanced. The proximal penile skin was dissected off the dartos fascia allowing for further advancement of the distal skin island.(Fig 2) At this stage the distal incision was again sutured to the corona and the

skin island was invaginated and with the help of traction over the proximal incision the inner layer of neo prepuce reconstruction was achieved.

The skin defect produced at the end of the step was then resurfaced with a split skin graft of intermediate skin thickness harvested from the left thigh that was already prepared. The anterior and posterior layers of the neoprepucce were sutured together over a Foley's catheter that was itself removed after 10 days.(Fig 3) A tie over dressing was given for the graft that was opened after 5 days. The patient as asked to massage the foreskin to achieve complete coverage of the glans. Graft take was nearly 100 %. In follow up after 3 months the foreskin completely covered the glans as requested by the patient and he was satisfied.(Fig 4)

Discussion

Decircumcision or the restoration of the prepuce, has been performed since antiquity. Though not often described, the procedure has been performed in various societies where circumcision was practised by a minority of population. Many of the first references to decircumcision have been seen in the Judeo-Christian religious writings of the Old and New Testament.(1)

The first proper description of the procedure was done by Celsus (25 BC to 50 AD). Modifications of the original Celsus technique were described many centuries later. The first such modification was detailed by Penn (2). He degloved the penis and advanced the shaft skin distally to cover the glans. He also placed an unmeshed split-thickness skin graft to the denuded area of the proximal penile shaft. Goodwin mentioned the use of a tissue expander to obtain extra penile shaft skin.(3)

The use of Fascial or Fasciocutaneous flap serves the purpose of forming the neo-prepuce in a single stage. Fascial flaps were first described by J.W Mcanich (4).He raised a pedicled flap in the buck's fascia, folded it on

itself to form the neo-prepuce and skin grafted the inner and outer surface of it. S.B Brandes modified Mcanich's technique by raising a fasciocutaneous flap over the distal penile skin and using it to form the neo-prepuce. The flap is not divided in the ventral midline. He skin grafted the outer aspect of exposed Buck's fascia.(4)

The fasciocutaneous flap descibed by us was raised as an island based on the principles of hypospadias management by Asopa and Duckett. It was split in the midline, infolded on itself and used to reconstruct the two layers of the neo prepuce.

Our method is unique because

1. The fasciocutaneouos flap is raised as an island on the pedicle in Buck's fascia .It is split in ventral midline.
2. The flap is folded on itself to produce both layers of the neo-prepuce
3. By reconstructing both the layers of neo prepuce with a flap we get a much more pliable and retractable tissue.
4. The aesthetic result is excellent

Thus, in conclusion islanded fasciocutaneous flap is a viable, aesthetically acceptable method of reconstructing the neo prepuce after circumcision and allows a single stage reconstruction of this unique defect.

Conflict of interest

None of the contributing authors have any conflict of interest,including financial interests or relationships and affiliations related to the subject matter or materials discussed in the manuscript.

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Figure 1: Preoperative picture



Figure 2: The islanded fasciocutaneous flap



Figure 3: After formation of the neo prepuce by suturing 2 layers of the flap.



Figure 4: Follow up after 3 months

