Chapter 15
How Do I Get a Perfect Cosmetic Result After Circumcision?

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Abstract Circumcision is not an essential surgery and poor cosmesis is an underrecognized complication of it. Factors leading to poor cosmesis following circumcision are; impertinent tissue handling, insufficient hemostasis, using thick heavy sutures with long absorption time, failing to recognize anatomical diversities or abnormalities, excessive resection of prepuce, and too tight dressing.

Keywords Cosmesis • Circumcision • Hypospadias • Prepuce • Frenulum

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Introduction

Cosmesis, by definition, means preservation, restoration, or bestowing of bodily beauty. Circumcision, which leaves a permanent change of the natal characteristics of a body part, will ever be subject to dispute particularly from the cosmetic point of view, besides function and other health related issues. Complications related to circumcision are mostly iatrogenic, imminent and need correction at diagnosis. "Bad" cosmesis is different and most people involuntarily or unwarily live with it. Since circumcision is not performed in the same manner in different communities, a "normal" looking circumcised penis in a country may seem ugly and unacceptable for people from other parts of the world. In this paper, we tried to outline basic features that will make a circumcised penis acceptable in most communities where it is performed routinely.

There are certain factors leading to poor cosmesis following circumcision:

- Impertinent tissue handling
- Insufficient hemostasis
- Using thick heavy sutures with long absorption time
- Failing to recognize anatomical diversities or abnormalities
- Excessive resection of prepuce
- Too tight dressing

Below, these points are reviewed in detail:

- The circumcision line should be close to the glans as possible (Fig. 15.1). Inner prepuce, covering the glans and designed to be wet, is more sensitive and delicate than outer preputial skin. It is prone to irritation and skin reaction left open following circumcision. Edema as a reaction to any irritant is more amplified in inner preputial skin. Limiting the width of inner prepuce up to 5–6 mm in newborns, and 7–8 mm in older boys does not only help in this issue, but it also prevents so-called "entrapped penis" by making it impossible for the circumcision line to move distal to the glans and retract (Fig. 15.2). Leaving short

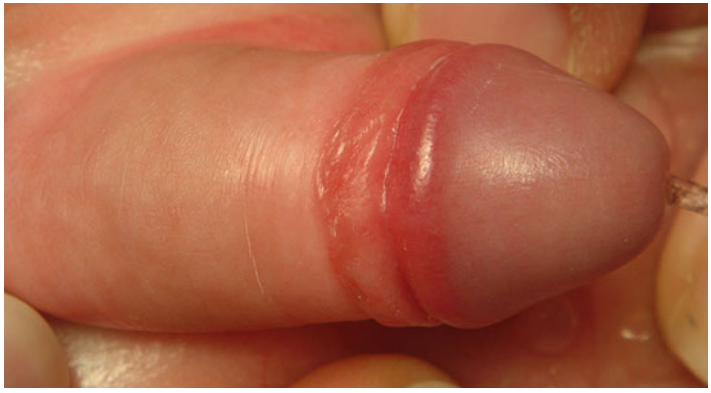


FIGURE 15.1 Ideal circumcision line should be close to the glans as possible as shown in the figure

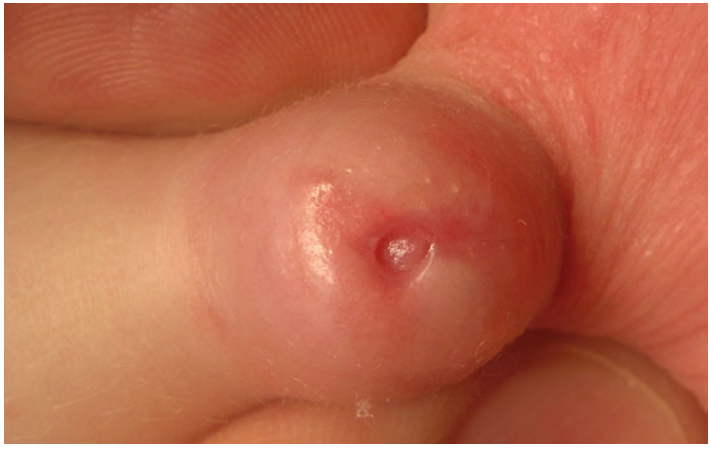
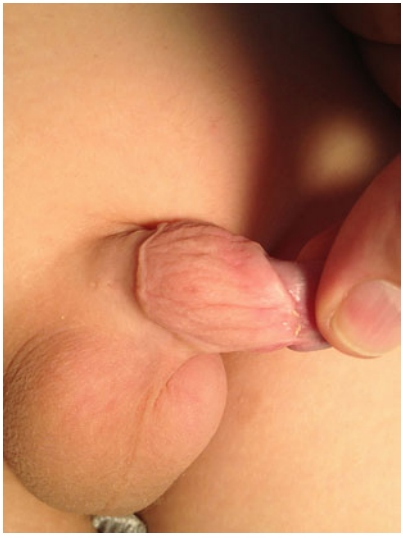
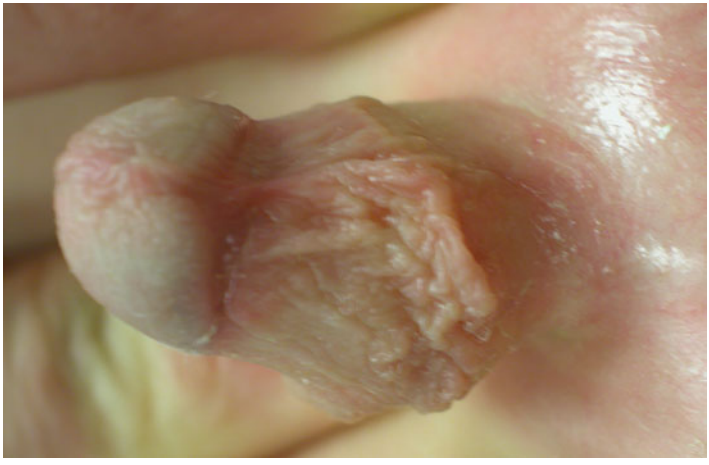


FIGURE 15.2 "Entrapped penis". The circumcision line has moved distal to the glans and retracted

inner prepuce is achievable in open sleeve and clamp techniques (Gomco and others). But, it is not possible in the traditional Guillotine-type circumcision, which leaves a very long inner prepuce with a circumcision line placed

in almost the middle of the penile shaft (Figs. 15.3 and 15.4). Unfortunately, this is still the most common technique performed by non-medical personnel in large parts of the world.





FIGURES 15.3 AND 15.4 In the traditional Guillotine-type circumcision, circumcision line is almost in the middle of the penile shaft

- Another important matter is the amount of excision of the prepuce. Too much excision may cause painful erections and premature ejaculation after puberty. Proximal line of excision should be marked while the penis is stretched. Besides, suprapubic fat tissue, to which penis is embedded, may cause difficulty to determine the amount of prepuce to be excised. By simply pressing suprapubic area, the length of the penis under erection may be estimated and proximal line is marked accordingly. Distal incision is made after stripping prepuce as described above. Starting with distal incision is preferred.
- Besides enhancing cosmesis, frenulum of prepuce of penis is believed to be one of the most two sensitive specific locations of the penis. However, the frenulum is cut in 26–33 % of circumcised normal patients without any short frenulum or frenular chordee [1, 2]. Frenulum is frequently cut in Gomco clamp type circumcisions, and many surgeons approximate and suture cut sides of proximal frenulum to reconstruct it. Ignoring this small detail leads to loss of circumferential inner preputial collar on the ventral side of the penis as an adverse cosmetic effect. It may also create glandular tilt or chordee on erection if ventral skin is tight. Frenulum is usually untouched in Guillotine-type circumcisions, but this is not a reason to defend that insecure technique. Nevertheless, the open sleeve technique is the best way to preserve frenulum.
- Ample time should be given to bleeding control, particularly in older boys. Using bipolar cautery for hemostasis is safer and easier. Postoperative bleeding or hematoma is one of the most common complications of circumcision.
- Skin closure should be done with most delicate sutures. Thick and slowly absorbable materials cause permanent suture tracts, sinuses or cysts. The inner foreskin of newborns and infants is fragile. 6/0 or 7/0 quickly absorbed materials like polyglactin or polyglicaprone can be used. For the older kids and adults, 5/0 quickly absorbed materials may be used. Medical cyanoacrylate is a good alternative to stitching. It avoids permanent suture marks and suture tunnels that may be problematic. Meticulous hemostasis is vital before cyanoacrylate application. Subcuticular

(separate or continuous) suturing, which has similar advantages can also be used by giving some more time and effort.

- The aim of dressing following circumcision is to cover sensitive areas of circumcised penis until the initial stages of wound healing are complete, which is usually 2–3 days. It also prevents excessive edema, which is common after circumcision. It is never a substitute for a careful bleeding control before suturing. Spending enough time for hemostasis is a better choice rather than a pressure dressing which is unsafe. Different kinds of dressings give similar results. The most important thing for the boy and the parents is that should be easily removed.
- Circumcision is performed most commonly in the newborn period where inner foreskin is strictly adhered to glans in most normal babies. Stripping the prepuce out of the glans leads to partial loss of epithelium over the glans. This heals secondarily, and results in a different color than the rest of the glans. Another complication specific to circumcision in the neonatal or infant period is adhesion of the inner preputial skin to the corona or glans. Most of those are benign and separates in time, but rarely they form strong attachments like skin bridges requiring excision (Fig. 15.5).
- There are some potential dangers of circumcision in some tricky cases that may lead to significant complications if unrecognized and the technique is not modified accordingly. The scope of this chapter is not enough to give detailed management of these particular problems, but they are listed below in an attempt to caution the reader to appreciate these challenging cases of circumcision which requires expertise.

  - Abundant suprapubic fat around penis particularly in obese boys
  - Penoscrotal fusion (webbed penis)
  - Congenital penile curvature
  - Hypospadias with megameatus and intact prepuce (Fig. 15.6)
  - Penile torsion or rotation
  - Micropenis

FIGURE 15.5 Skin bridges due to neonatal circumcision requiring excision

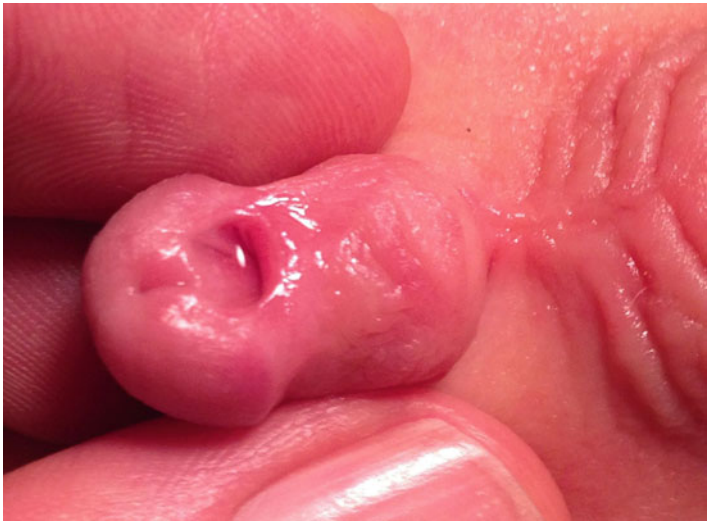


FIGURE 15.6 Ignoring hypospadias with megameatus and intact prepuce during circumcision is a malpractice issue

References

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