

Foreskin Retraction and Circumcision: Possible Late Consequences

Keywords: Foreskin retraction; Circumcision; Genital burn; Balanoposthitis

Abstract

This case report is about spontaneous foreskin retraction but it is relevant also to the status after circumcision. Non-therapeutic male circumcision remains controversial; there is evidence in support of its benefits; however, good hygiene may achieve some of the aims. Late consequences are understudied, in particular, those related to atrophy of the ageing genital skin and mucous membranes. A superficial scald burn of the genital area occurred to a 3-years-old boy in conditions of child neglect. Immediate medical help was not sought. In the following years, symptoms of balanoposthitis were repeatedly noticed. Along with the pubertal development, the foreskin became completely and permanently retracted. There has never been any strangulation or compression in terms of paraphimosis. The symptoms started appearing at the age of about 58 years: recurring superficial erosions in the frenular area, preputial rim and adjacent surfaces. The penis binding with a soft cloth and occasional topical treatment is necessary as atrophic skin is sensitive and vulnerable. Derangements of blood supply may contribute to atrophic changes; therefore, vascular diseases and diabetes mellitus must be included in the differential diagnosis. Potential adverse effects discussed in this report emphasize the fact that non-therapeutic neonatal circumcision is an invasive procedure performed without patients' consent.

Introduction

This case report is about spontaneous foreskin retraction but it is relevant also to the status after circumcision. The aim of this report was to draw attention to the understudied late consequences of the permanent glans exposure and to call into question, once again, the rationale behind the routine newborn circumcision. Neonatal circumcision remains controversial, with rates varying over years. There is evidence in support of its benefits [1,2]; but good hygiene may also achieve some of the goals [3]. Male circumcision as a method of HIV prevention, reportedly used in Africa with success [4], is beyond the scope of this article. Some aspects of adult and newborn non-therapeutic circumcision should be discussed separately. In adults, the procedure is generally performed according to the principle of informed consent. In the case of minors or newborns, this principle is not observed, while the operation is justified by preventive purposes or religious arguments [5]. The latter are not discussed here; it should be only mentioned that obscurantists can influence broad population strata diverting them from evidence-based medicine and thus from their own and their children's best interest. With regard to prevention, the American Academy of Pediatrics (AAP) concluded the following: "Existing scientific evidence demonstrates potential medical benefits of newborn male circumcision; however, this data is not sufficient to recommend routine newborn circumcision" [6]. The AAP Committee on Bioethics stated that interventions that can safely wait until the child can provide his own consent should be delayed until that consent can be obtained [5].



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Submission: 06 December, 2021

Accepted: 23 December, 2021

Published: 27 December, 2021

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Results of a recent meta-analysis indicated that overall risk of complications requiring treatment after male circumcisions was 3.84% (95% confidence interval 3.35-4.37) [7]. According to some authors, a lower frequency of complications is observed when the procedure is performed on newborns; others believe that the difference is caused by a better documentation of adverse events in older patients. The complications include hemorrhages, infections, adhesions and stenosis of the urethral meatus. In the absence of anesthesia, the common adverse effect is pain, confirmed by changes of the heartbeat and the newborn's cry [5]. Neonatal circumcision without clinical indications can be seen as invasive procedure with a complication risk, performed without patients' consent [8]. Since preventive male circumcision leads to a permanent anatomical alteration, some authors opine that it may be applied only in subjects capable of giving consent [5]. The voluntariness in children should be maximized by involving them as much as their age and understanding would permit in the treatment planning [9]. Long-term consequences of the glans exposure due to circumcision or permanent foreskin retraction remain understudied, in particular, those related to atrophy and vulnerability of the ageing genital skin and mucous membranes.

Case History

In the case of burns in children, child abuse and neglect should be taken into consideration [10]. It has been estimated that up to 20% of burn injuries are the result of child abuse or neglect, with highest incidence among children 0-4 years of age [11]. A superficial scald burn of the genital area with hot soup occurred to a 3-years-old boy in conditions of child neglect [12]. Immediate medical help was not sought. Subsequently, the fact of the burn was concealed from medics. When the healing ensued, the child started scratching the area. In the following years, symptoms of balanoposthitis were repeatedly noticed. Along with the pubertal development, the foreskin became completely and permanently retracted. There has never been any strangulation or compression in terms of paraphimosis. The symptoms started appearing at the age of about 58 years: recurrent superficial erosions in the frenular area, preputial rim and adjacent surfaces, occasional symptoms of distal urethritis. With a sexual abstinence the condition comes to remission; but the penis binding

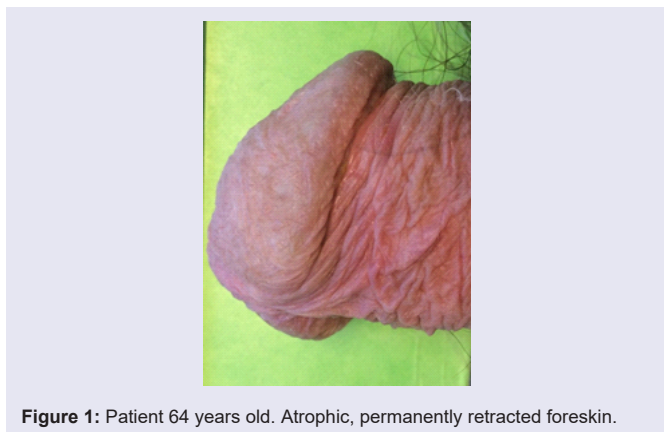


Figure 1: Patient 64 years old. Atrophic, permanently retracted foreskin.

with a soft cloth is necessary as thin atrophic skin is sensitive and vulnerable (Figure 1). Ointments or vegetable oil are used to prevent the sticking with the cloth in case of erosion or urethral discharge. The topical treatment with Solcoseryl® or Actovegin® cream and sea-buckthorn oil [13] led to visible improvements.

Discussion

The loss of double-layered prepuce exposes the glans and meatus to direct abrasion and trauma [14] that may become noticeable in conditions of age-related atrophy. Impairments of blood supply can contribute to atrophic changes; therefore, vascular diseases and diabetes mellitus must be included in the differential diagnosis in such cases. Doppler ultrasonography is useful for the assessment of vasculature [15]. A circulation derangement may be caused by hernia and/or perineal descensus resulting e.g. from lifting of heavy weights at a young age. Possible causes of the foreskin retraction should be considered: lichen planus, squamous cell carcinoma and premalignant lesions, other foreskin conditions as well as congenitally underdeveloped prepuce (microposthia). Of note, comparable gynecological conditions (atrophic vaginitis) are given more attention in the literature, which can be seen as example of sexism in medicine. Sexism and ageism in the healthcare are known topics [16]. Certain ailments of ageing people are not given sufficient attention.

Conclusion

The glans exposure as a result of circumcision, permanent foreskin

retraction or congenital microposthia may become symptomatic along with progressive age-related atrophy and vulnerability of the preputial and glans skin. Potential adverse effects discussed in this report, as well as others, must draw attention to the fact that non-therapeutic neonatal circumcision is an invasive procedure performed without patients' consent.

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