



CASE REPORT

Open Access

A Near-Miss Unintended Orchidectomy involving a Local Herbal-Circumcisionist in South-Eastern Ghana: A Case Report on a Circumcision Disaster

Qyun Zhehau, Diclyn Zichire*

Department of Surgery, Yuncheng University, Shanxi, China

ABSTRACT

Introduction: This case report details a near-catastrophic event involving a 4-month-old male who underwent circumcision by a local herbal circumcisionist in South-Eastern Ghana. The procedure resulted in severe complications, almost leading to unintended orchidectomy. This case underscores the critical need for proper medical training and stringent regulation of traditional practices.

Case presentation: The circumcision led to extensive penile skin degloving and loss, affecting the scrotal skin, dartos muscle and fascia, external spermatic fascia, cremaster muscle and fascia, and internal spermatic fascia. Only the tunica vaginalis remained as coverage for over 50% of the scrotal area. Immediate surgical intervention with wound toileting and primary closure using local dartoso-fasciocutaneous flaps was performed. The child recovered without loss of testicular function.

Discussion: The scrotum's adaptability allowed for effective use of local flaps, demonstrated by its ability to stretch and regenerate. This case highlights the need for medical oversight in traditional circumcision practices.

Conclusion: Urgent regulation and education of traditional practitioners are essential for safe circumcision practices.

ARTICLE HISTORY

Received: 30-Sep-2024, Manuscript No. EJMACES-24-149179; Editor assigned: 03-Oct-2024, PreQC No. EJMACES-24-149179 (PQ); Reviewed: 17-Oct-2024, QC No. EJMACES-24-149179; Revised: 24-Oct-2024, Manuscript No. EJMACES-24-149179 (R); Published: 31-Oct-2024

KEYWORDS

Near-miss orchidectomy; Herbal circumcisionist; Traditional circumcision; Medical complications

Introduction

Circumcision is a widespread practice in many cultures and religions, often performed for various reasons including religious, cultural, and medical purposes. Medically, circumcision is ideally carried out by trained surgeons or formally trained medical staff. However, in some regions, it is frequently performed by individuals outside the formal medical sector, such as traditional circumcisionists (commonly known as 'wanzams' in our setting) or herbalists [1,2]. While these traditional practices hold cultural significance, they can lead to severe medical complications when not conducted under proper medical standards and supervision.

Case Presentation

A male (African) child from South-Eastern Ghana (sub-saharan Africa), was sent to a local herbal circumcisionist for a routine circumcision. The herbalist, lacking formal medical training, performed the procedure using traditional methods and materials. In the process, he apparently over-shot his circumcising incision, ending up with deep lacerations in both hemiscrotums (with the loss of scrotal skin, dartos muscle and fascia, external spermatic fascia,

cremaster muscle and fascia, and internal spermatic fascia. Only the tunica vaginalis remained as coverage for over 50% of the scrotal area). Up to 50% of the testicles and its coverings on both sides was exposed (Figure 1). There was an excessive penile skin loss as well. Shortly after the procedure, the patient developed severe swelling and bleeding of the genital area and was subsequently rushed to our hospital (Figure 1). Presentation was early.

Upon presentation at the teaching hospital, patient was found to have extensive damage to the penile and scrotal tissues with a deep laceration in both hemiscrotums (Figure 1), exposing the tunica vaginalis of both scrotal compartments and testicles. There was a significant risk of losing one or both testicles. His haemoglobin count was 10.8 g/dl, platelet and white blood cell counts were within normal. Fortunately, presentation was rather early; and immediate surgical intervention was performed, which included wound toileting, debridement of necrotic tissue, repair of the damage and primary surgical closure to control the bleeding. The medical team successfully preserved both testicles, in this damage-control, reconstructive procedure, and the outcome was auspicious (Figure 2).

Contact: Diclyn Zichire, E-mail: Zdiclyn56@gmail.com

Copyright: © 2024 The Authors. This is an open access article under the terms of the Creative Commons Attribution Non Commercial Share Alike 4.0 (<https://creativecommons.org/licenses/by-nc-sa/4.0/>).



Figure 1. This pictograph shows a deep scrotal laceration involving both hemiscrotums with both testicles and coverings exposed.

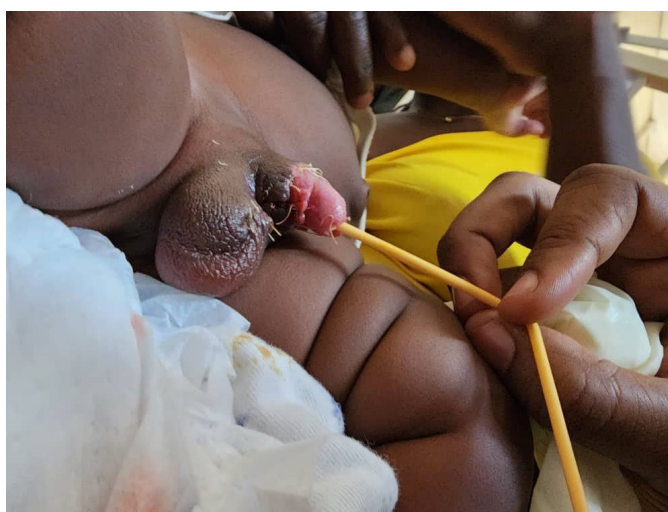


Figure 2. Preliminary results 5 days after the primary closure in theatre.

Under general anaesthesia with a cuffed endotracheal tube, the wound was explored, and the remnant skin and subcutaneous tissues were undermined, and primary closure using local dartoso-fasciocutaneous flaps was performed. The wound was sutured in two layers using absorbable sutures, ensuring minimal scarring and promoting healing. Fortunately, no blood transfusions were required during the procedure.

The medical team successfully preserved both testicles, and the outcome was favorable. The child recovered without loss of testicular function. The SCARE (Surgical CAse REport) criteria was followed in this case report [3].

Results and Discussion

Circumcision remains a common procedure with significant cultural, religious, and medical implications. However, when performed by untrained personnel, the risks increase exponentially. In Ghana and other parts of Africa, traditional circumcisionists, often referred to as 'wanzams,' conduct these procedures without the necessary medical knowledge, supervision, and equipment, leading to severe complications [1,2].

Medical methods of circumcision include dorsal slit, sleeve resection, guillotine, Gomco clamp, Plastibell, Mogen clamp, Shang Ring, and PrePex device. The

selection of a circumcision method is influenced by factors such as the patient's age, medical reasons, and the practitioner's proficiency. Each technique offers specific benefits and potential risks that need to be evaluated when planning the procedure. Employing the correct technique and ensuring proper post-operative care are essential for reducing complications and achieving favorable outcomes [4].

The dorsal slit technique involves making a longitudinal incision along the dorsal aspect of the foreskin before excising it, with careful haemostasis secured. It is often used in older children and adults where better visualization and control are needed [5].

The sleeve resection technique involves making a circular incision around the circumference of the foreskin, followed by the removal of excess skin and hemostasis. This method is common in pediatric practice and provides a neat cosmetic result [4].

The guillotine technique involves stretching and clamping the foreskin, then excising it in a single cut. Hemostasis is then ensured. This method is quick and efficient, often used in neonatal circumcisions, but carries a higher likelihood of complications, including glanular injuries, if not performed correctly [5].

Device-assisted methods of circumcision are also practiced, including the Gomco Clamp, one of the oldest and most commonly used devices. It consists of a metal bell that fits over the glans, with a clamp applied to the foreskin externally. The foreskin is excised after clamping, minimizing bleeding [6].

The Plastibell Device involves placing a plastic ring over the glans and tying a suture around the foreskin. The foreskin is then cut away, and the ring falls off after several days. This method is popular for neonatal circumcisions due to its simplicity and lower complication rates [7].

The Mogen clamp is a hinge-like device that clamps the foreskin, allowing it to be excised. It provides quick and relatively bloodless circumcision but requires precision to avoid injury to the glans [7].

The Shang Ring consists of two plastic rings that clamp the foreskin. It is primarily used in adult and adolescent circumcisions in some parts of the world and has been shown to have low complication rates [8].

A notable non-surgical method of circumcision is the PrePex Device, which is a non-surgical method that uses elastic bands to induce ischemic necrosis of the foreskin, which is then removed after several days. It is primarily used in adult males for voluntary medical circumcision in HIV prevention programs [9].

It is essential to ensure adequate anaesthesia during

circumcision procedures and provide appropriate analgesia and wound care thereafter. The choice of circumcision method depends on various factors, including patient age, medical indications, and the practitioner's expertise. Each technique has its advantages and potential complications, which must be considered when planning the procedure. Proper technique and post-operative care are significant for minimizing complications and ensuring a good outcome [10].

Traditional circumcision practices are deeply rooted in many African cultures, with practices varying significantly across regions. Herbal circumcisionists use various traditional tools, often not sterilized, and methods that are self-styled, increasing the likelihood of complications. Studies have documented high rates of complications, including infections, hemorrhage, and injury to the penis and surrounding tissues [11]. The lack of standardized training and aseptic techniques among traditional circumcisionists contributes significantly to these adverse outcomes [1].

Complications and risks of circumcision associated with non-medical circumcisions are well-documented. Infections are among the most common issues, often resulting from non-sterile instruments and inadequate wound care. Severe infections can lead to systemic sepsis, neonatal tetanus, and even death if not promptly treated [1]. Hemorrhage is another critical complication, common with traditional methods that fail to control bleeding effectively; penile injuries, including glans amputation and urethrocutaneous fistulae are also documented [5].

The complications observed in our index patient's case highlight the dangers associated with non-medical circumcision practices. Notable complications from non-medical circumcisions include infections, excessive bleeding, and accidental injury to the penile or scrotal tissues, with associated lifelong emotional scars. Traditional circumcisionists often lack the necessary aseptic techniques, surgical knowledge, and emergency response skills to manage these complications [11]. In our case, the scrotum's adaptability allowed for effective use of local flaps, demonstrated by its ability to stretch and regenerate; helped salvage the catastrophe.

The World Health Organization (WHO) and other health bodies advocate for medical training and supervision of traditional circumcisionists to mitigate such risks [9]. Specifically, infections and other complications are not uncommon when proper sterilization and surgical techniques are not employed, highlighting the importance of integrating traditional practices with modern medical oversight [1].

Conclusion

This case illustrates the severe risks associated with traditional circumcision practices, particularly when performed by individuals without proper medical training. The near-catastrophic outcome for this case underscores the need for increased awareness and regulation of non-medical circumcision practices in Ghana and similar settings. There is an urgent need for training, supervision, and public education to prevent such incidents from occurring. Medical practitioners, policymakers, and traditional practitioners must collaborate to ensure the safety and well-being of children undergoing circumcision.

Informed Consent

A written informed consent was obtained from the patient to use his case details, images and findings for this case study. More importantly, care has been taken to omit all identifying information of the patient.

Conflict of Interest

Authors have no conflicts of interest to disclose.

References

- [1] Magoha GA. Circumcision in various Nigerian and Kenyan hospitals. *East Afr Med J* 1999;76(10):583-586.
- [2] Peltzer K, Kanta X. Medical circumcision and manhood initiation rituals in the Eastern Cape, South Africa: A post intervention evaluation. *Cult Health Sex* 2009;11(1):83-97.
- [3] Sohrabi C, Mathew G, Maria N, Kerwan A, Franchi T, Agha RA, et al. The SCARE 2023 guideline: Updating consensus Surgical CAse REport (SCARE) guidelines. *Int J Surg* 2023;109(5):1136-1140.
- [4] Vakalopoulos I, Kampantais S, Laskaridis L, Chrisofos M. Overview of circumcision techniques: Comparative effectiveness, quality of life, and sexual function outcomes. *Urology* 2015;85(3):512-516.
- [5] Barone MA, Li PS, Goldstein M. Intraoperative assessment of the morbidity of adult circumcision techniques in a developing country setting. *J Urol* 2012;187(1):234-238.
- [6] Sorokan ST, Finlay JC, Jefferies AL. Newborn male circumcision. *Paediatr Child Health* 2015;20(6):311-315.
- [7] Bailey RC, Egesah O, Rosenberg S. Male circumcision for HIV prevention: A prospective study of complications in clinical and traditional settings in Bungoma, Kenya. *Bull World Health Organ* 2008;86(9):669-677.
- [8] Kraft KH, Shukla AR, Canning DA. Pediatric penile trauma: Management and reconstruction. *J Indian Assoc Pediatr Surg* 2016;21(1):19-23.
- [9] World Health Organization. Male circumcision: Global trends and determinants of prevalence, safety and acceptability. 2008.
- [10] Kim HH, Li PS, Goldstein M. Male circumcision: Africa and beyond?. *Curr Opin Urol* 2010;20(6):515-519.
- [11] Tirana AE, Othman MA, Gad HA, Elsadek ET, Fahmy MS. Paraphimosis and urethral fistula as a result of an unskilled circumcision: A case report. *Urol Case Rep* 2022;38:101748.