



# Phimosis and Paraphimosis in Children: About 7 Cases in the Pediatric Surgery Department of the Sylvanus Olympio University Hospital in Lomé (Togo)

Yacoub Ahmat Salhadine\*, Dede Virginie Teko, Sosso Piham Kebalo, Amivi Alice Donou, Okassate Sibabi-Akpo, Emmanuel Sekoudji, Amavi Folly, Djimo Gladys Lebughe, Junior Sylvere Gbelesso, Yireta Moyalbaye, Gongtoin Gouawa, Michelle Awoute, Dayourou Yéndoubé Toare, Komla Gnassingbe

Department of Surgery Pediatric, University Hospital Center, Lomé, Togo  
Email: \*salestebenyacoub@gmail.com

**How to cite this paper:** Salhadine, Y.A., Teko, D.V., Kebalo, S.P., Donou, A.A., Sibabi-Akpo, O., Sekoudji, E., Folly, A., Lebughe, D.G., Gbelesso, J.S., Moyalbaye, Y., Gouawa, G., Awoute, M., Toare, D.Y. and Gnassingbe, K. (2022) Phimosis and Paraphimosis in Children: About 7 Cases in the Pediatric Surgery Department of the Sylvanus Olympio University Hospital in Lomé (Togo). *Open Access Library Journal*, 9: e9499.

<https://doi.org/10.4236/oalib.1109499>

**Received:** October 28, 2022

**Accepted:** December 5, 2022

**Published:** December 8, 2022

Copyright © 2022 by author(s) and Open Access Library Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

## Abstract

**Background:** Phimosis and paraphimosis are two rare pathologies in our context, they present complications that can go up to penile cancer. **Objective:** To describe the epidemiology, the clinic and the therapy at the CHU SO of Lomé. **Methods:** This was a 6-month prospective study conducted in the pediatric surgery department of the CHU SO of Lomé from June 1 to December 31, 2021. It involved newborns, infants, and small children who had consulted for phimosis and paraphimosis. **Results:** We identified 7 cases, 2 cases of phimosis and 5 cases of paraphimosis. All our patients had a history of decalcification. The most concerned age was 2 months. The most frequent reason was swelling of the prepuce (100%), as well as a blockage of the preputial ring on physical examination. 1 case of acute retention of urine was recorded, manual reduction was done in all our patients who had paraphimosis, circumcision was done in all patients who had phimosis. **Conclusion:** Phimosis is a pathology that can be complicated into paraphimosis, manual reduction is a first line treatment and circumcision remains the best approach.

## Subject Areas

Surgery Pediatric

## Keywords

Phimosis, Paraphimosis, Lomé

## 1. Introduction

Phimosis is a congenital preputial anomaly that does not disappear completely during physiological development, whereas secondary phimosis is the consequence of inflammation and trauma [1]. It is common in boys under 3 years of age [2].

Paraphimosis is the result of retraction of the shrunken foreskin, which cannot be covered and can lead to inflammation, ulceration and even necrosis of the gland [1].

Surgical management of phimosis is required when a ring of sclerosis is present or when initial medical management with corticosteroids has failed [3].

The objective of our study is to provide an update on phimosis and paraphimosis at the CHU SO of Lomé.

## 2. Methods

This was a prospective descriptive study lasting 6 months from June 1 to December 31, 2021. It included all children who consulted for phimosis or paraphimosis in the pediatric surgery department of the CHU SO, which is the national reference center. The parameters taken into account were age, history, reason for consultation, physical signs, definitive diagnosis, possible complications and treatment received. Data entry was done on EPI DATA 3.1 software and then exported to SPSS for analysis.

## 3. Result

During our study period, we received 7 children, 2 cases of phimosis (28.57%), and 5 cases of paraphimosis (71.43%) (**Figure 1** and **Figure 2**).

All our patients had a history of foreskin decalcification, and two had previous paraphimosis and phimosis that reduced without maneuver.



**Figure 1.** Paraphimosis in a 3-month-old infant.



**Figure 2.** Phimosis in a 2-month-old infant.

There was a predominance of 2 months of age with 5 cases (71.42%), 1 patient (14.28%) was at D1 of life, and 1 patient was 3 years old (14.28%).

The most frequent reason for consultation was swelling of the foreskin in all cases (100%), followed by difficulty in urinating and redness of the foreskin in 2 cases (28.57%).

All our patients had preputial ring blockage on physical examination, followed by preputial edema in 6 cases (85.74%).

Acute retention of urine was the only complication found during our study period in precisely 3 cases (42.85%).

All our patients had benefited from an analgesic which is adapted according to the age and weight of the patient.

Five of our patients had benefited from nursing. All the cases of paraphimosis had benefited from manual reduction, and the cases of phimosis had been circumcised.

Circumcision was performed in 3 cases (42.85%) and only one case had received prophylactic antibiotic therapy.

#### **4. Discussion**

Phimosis and paraphimosis are part of the pathology acquired from the foreskin, they only affect the uncircumcised penis. These two pathologies are rare in our context because we practice circumcision at a young age. In our study, we recorded only 7 cases, Schmidt A-M *et al.* [4] in 2022 Reported a prevalence of 68% for phimosis in children aged between 0 and 3 years, Ndoye. N *et al.* [5] in 2015 reported 3 cases of paraphimosis which constituted 7.5% of all urological emergencies in children aged 0 - 15 years [6].

Two of our children had made these two pathologies which reduced spontaneously before they had a recurrence. This is explained by the fact that in our environment, during the child's bath, the mothers practice the phenomenon of

unhooding and rehooding, which is a risk factor for the occurrence of phimosis and paraphimosis.

Phimosis and paraphimosis lead to complications if the treatment was not early, we have recorded a case of acute retention of urine, which is the first complication in front of these two pathologies. Schmidt A-M *et al.* [1] in 2022 reported that phimosis is a risk factor not only for acute urine retention or urinary tract infection, but also a risk factor for the occurrence of penile cancer, hence the importance of educating parents about its pathologies and their complications [1].

The treatment of paraphimosis is done in 2 parts: a manual reduction, followed by an immediate or delayed circumcision. In contrast, the treatment of phimosis is immediate circumcision. All our patients who had paraphimosis had benefited from a manual reduction and circumcision from the outset for cases of phimosis.

Circumcision was proposed in 06 of our patients, 3 patients had benefited from a circumcision during our period. The refusal is often justified by the parents by a lack of financial means and a preference to do it at the traditional practitioner. Circumcision allows to avoid not only recurrences, but also complications.

## 5. Conclusion

In this study the prevalence of phimosis was higher than that of paraphimosis. These are pathologies that can lead to complications. Manual reduction is a standby treatment and circumcision will prevent recurrence and complications.

## Conflicts of Interest

The authors declare no conflicts of interest.

## References

- [1] Schmidt, A.-M. and Stehr, M. (2019) Handlungsempfehlung nach der S2k-Leitlinie Phimose und Paraphimose. *Monatsschrift Kinderheilkunde*, **167**, 1154-1156. <https://doi.org/10.1007/s00112-019-00793-y>
- [2] Hayashi, Y., Kojima, Y., Mizuno, K. and Kohri, K. (2011) Prepuce: Phimosis, Paraphimosis, and Circumcision. *The Scientific World Journal*, **11**, 289-301. <https://doi.org/10.1100/tsw.2011.31>
- [3] Binet, A., François-Fiquet, C. and Bouche-Pillon, M.A. (2016) Retour d'expérience d'une nouvelle technique de préputioplastie comme alternative à la circoncision. *Annales de Chirurgie Plastique Esthétique*, **61**, 23-28. <https://doi.org/10.1016/j.anplas.2015.01.003>
- [4] Sungwalprakaisang, W., Swatesutipun, V. and Tangpaitoon, T. (2022) Prevalence of Phimosis, Benefit of Manual Foreskin Retraction, and Parent's Perception about Phimosis in Thai Kindergarten and Primary School Aged Boys. *Journal of the Medical Association of Thailand*, **105**, 188-193. <http://www.jmatonline.com/index.php/jmat/article/view/13275>
- [5] NDoye, N.A., NDour, O., *et al.* (2015) Urological Emergencies in Paediatric Sur-

gery: A Survey of 40 Cases. *Mali Medical*, **30**, 33-35.

- [6] Al-Mayoof, A.F., Esmael Almushhadany, O., Joda, A.E. and Kamil Mohammed, M. (2020) Evaluation of Risk Factors for Secondary Phimosis in Children. *International Journal of Surgery Open*, **24**, 69-72. <https://doi.org/10.1016/j.ijso.2020.04.003>