

# Smegma Pearl: A Benign Penile Lesion in Infants

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## Abstract

Benign penile nodules in infants can cause distress to mothers and diagnostic challenges for physicians. Smegma pearls, characterized by desquamated epithelial cells, are a common type of benign nodule that can be managed with reassurance. We present similar case which presented to the rural primary care centre in Nepal.

## Smegma Pearl: A Benign Penile Lesion in Infants

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*Consent: A written consent has been obtained from the mother of the patient for the publication of medical report in accordance with the Journal's patient consent policy.*

## Abstract:

Penile nodules in infant are distressing to the mother and also cause diagnostic dilemmas to primary care physician. Most of the penile nodules are benign and the only treatment is reassurance to the mother. Smegma pearl occurs due to accumulation of the desquamated epithelial cells under the penile foreskin and are visualized as yellowish white lumps. We present a similar case who presented to the primary health centre at rural Nepal.

*Keywords: Smegma Pearl, Penile lesion.*

## Introduction:

Smegma pearls are benign collections of smegma that can develop in the glans of uncircumcised boys. While the condition is typically asymptomatic and resolves on its own over time, it can cause anxiety for parents and caregivers. In this case report, we present the case of a 2-month-old male infant who was brought to a primary health center by his mother, with a white nodule on his penis.

## Case presentation:

A 2-month-old male infant was brought to a primary health center by his apprehensive mother who was concerned about a white nodule on his penis. The infant was voiding without difficulty and breastfeeding well. No similar lesions were noticed on the rest of the body or mucosal surfaces. There was no maternal history of sexually transmitted infections, and all the initial infection screenings, including HIV/Hepatitis B,C/Syphilis, were negative. The mother denied any trauma. The baby was born at full term to a multigravida mother via spontaneous vaginal delivery with a birth weight of 3.5kg, head circumference of 36cm, and length of 51cm.

The clinical examination of the baby was unremarkable except for a white nodular lesion on the tip of the penis noted. Evaluation of the external genitalia revealed a 0.5 x 0.5 cm-sized, round, yellowish-white nodule over the penile foreskin. (Figure 1) The lesion was non-tender and soft in consistency. After discussing the diagnosis with the urologist, the mother was initially counseled regarding the benign nature of the condition. However, despite attempts at further counseling, the mother remained apprehensive and could not be fully reassured. So manual expression of the nodule by gentle pressure was performed, revealing white cheesy material and further confirming the diagnosis of Smegma pearl. At six-month follow-up visit, the nodular swelling has resolved and child was doing well.



## Discussion

Smegma pearls are small, yellowish-white lumps that can develop in the glans of uncircumcised boys due to a buildup of smegma, typically between the preputial membrane and the base of the glans penis.(1) In affected individuals, the prepuce exhibits a partial retractability while the urethra remains unaffected. A diverse range of bacterial species may inhabit the preputial sac, thereby predisposing them to bacterial superinfection.(2) With regard to management, the primary therapeutic modality for smegma pearls involves offering reassurance and counseling to the patient, with the expectation that spontaneous separation will occur over time. However, caution must be exercised while attempting bimanual retraction of smegma, as it carries the potential risk of complications such as paraphimosis, recurrence of phimosis, and the development of additional smegma pearls.

The differential diagnosis of the swelling presenting in the tip of penis usually includes preputial Epstein pearls, preputial cysts, median raphe cysts and smegma stone(smegmaliths). Those various swelling could easily be differentiated based on the location and age of the child. Preputial Epstein pearls are usually pearly white swelling present over the tip of penis incidentally found in male newborn and disappear by seventh day of life. (3) Preputial cysts are the nodular swelling present under the glans and median raphe cysts are located over the ventral surface of the penis due to tissue trapping during development of the urethral folds. Smegma stones presents in adult men with inflamed and partially retractable prepuce with sub preputial discharge.

Although smegma pearl is best managed conservatively, some physicians advise for 6 to 8 weeks of low potency steroids. (1) In this particular case, the mother harbored apprehensions and reservations regarding the natural course of the condition, and therefore we opted for manual extraction in consultation with a urologist. While it may be argued that such intervention was unnecessary from a clinical standpoint, it was deemed necessary on social grounds to assuage the concerns of the mother.

## Conclusions:

Smegma pearls, which are benign collections of smegma, usually resolve on their own without any intervention. Parents can be reassured and advised to monitor the condition for resolution. Although manual retraction is an option for managing smegma pearls, it comes with potential risks, including paraphimosis, recurrence of the condition, and the possibility of secondary infection. Therefore, healthcare providers should carefully weigh the potential risks and benefits of this approach and educate patients and parents on these potential complications.

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