

PENILE CANCER AND MULTIPLE PREPUTIAL STONE: A RARE CASE REPORT

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ABSTRACT

Objective: This paper aims to report a case of penile cancer with multiple prepuce stones in a 46-year-old non-circumcised male. **Case Presentation:** A 46-year-old male patient came to the clinic with complaints of a slowly enlarging penis since the last 2 months. Complaints are accompanied by difficulty and pain when urinating, sometimes there are stones that come out when urinating. Physical examination revealed an enlarged penis, irregular shape, tenderness, unclear borders. Multiple prepuce stones, pus accumulation, and suspicion of malignancy in the penis were observed. Histopathology showed squamous cell carcinoma (SCC) of the penis. The patient was discharged 4 days postoperatively and prepared for follow-up treatment. **Discussion:** Penile cancer and prepuce stones are very rare cases. Smegma accumulation, chronic inflammation, and urinary stasis are the pathophysiology of penile cancer and prepuce stones. **Conclusion:** Penile cancer and preputial stones are very rare. We performed a surgical procedure to divert urine by urethral catheterisation, treated the infection and took penile tissue for biopsy, after which he was referred for further treatment.

Keywords: Penile cancer, multiple prepuce stone, a rare case report.

ABSTRAK

Tujuan: Penelitian ini bertujuan untuk melaporkan kasus kanker penis dengan batu preputium multipel pada pasien laki-laki usia 46 tahun yang tidak disirkumsisi. **Presentasi Kasus:** Pasien laki-laki usia 46 tahun datang ke poliklinik dengan keluhan penis membesar secara perlahan sejak 2 bulan terakhir. Keluhan disertai dengan kesulitan dan nyeri saat berkemih, kadang-kadang terdapat batu yang keluar saat berkemih. Pemeriksaan fisik didapatkan, penis membesar, bentuk irregular, nyeri tekan, batas tidak jelas. Dilakukan tindakan operatif, didapatkan adanya batu preputium multipel, akumulasi pus, dan kecurigaan keganasan pada penis. Hasil histopatologi menunjukkan adanya squamous cell carcinoma (SCC) Penis. Pasien dipulangkan 4 hari post operasi dan dipersiapkan untuk berobat lanjut. **Diskusi:** Kanker penis dan batu preputium merupakan kasus yang sangat jarang didapatkan. Akumulasi smegma, inflamasi kronik, dan stasis urin merupakan patofisiologi terjadinya kanker penis dan batu preputium. **Simpulan:** Kanker penis dan batu preputium merupakan kasus yang sangat jarang terjadi. Kami melakukan prosedur operasi untuk mengalihkan urin melalui kateterisasi uretra, mengatasi infeksi, dan mengambil jaringan penis untuk biopsy setelah itu di rujuk untuk berobat lanjut

Kata Kunci: Kanker penis, batu preputium multipel, laporan kasus jarang.

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INTRODUCTION

The incidence of penile cancer varies globally. Penile cancer is rare in industrialized nations. In Europe and the USA, the overall incidence is approximately 0.94/100,000 males.¹ There are a number of known risk factors for penile cancer, including smoking, phimosis, lichen sclerosus, chronic penile inflammation, and low socioeconomic position.² Because of the persistent infections that are linked to phimosis, invasive penile cancer is highly connected with it.³⁻⁴

Few cases of preputial stones, a very uncommon type of urinary tract stone that mostly affects uncircumcised boys with poor genital hygiene and low socioeconomic position.⁵⁻⁸ Robert Clarke reported the first instance of a preputial stone in an adult in 1794.⁷ Severe phimosis is thought to be the main cause of preputial stones; however, smegma solidification and urine flow accumulation on the preputial area are also potential reasons.⁵

In this study, we report a case of penile cancer with multiple preputial stones in a 46 year old uncircumcised male patient. We report this case

because penile cancer and prepuce stones are very rare, and this case is unique because penile cancer and multiple prepuce stones were found simultaneously. Case reports on prepuce stones are still rarely reported.

CASE(S) PRESENTATION

A 46-year-old male patient came to the clinic with a chief complaint of an enlarged penis. This complaint appeared slowly and has been getting bigger since the last 2 months. In the last 2 months, the patient complained of pain when urinating and sometimes there were stones coming out of the tip of the penis. Weight loss was denied. The patient was not circumcised and had a history of untreated phimosis since childhood. The patient did not pay much attention to genital hygiene after micturition. History of penile injection was denied. In family members, no one had similar complaints with the patient. The patient has a wife and was sexually active without any problems prior to this complaint. History of active sexual intercourse other than with his wife was denied by the patient. The patient is actively working as a farmer.

On physical examination, the patient's general condition was good, vital signs were within normal limits. On examination of the local status, inspection found an enlarged penis, irregular shape, multiple wounds with signs of inflammation on the dorsal and ventrolateral parts of the penis, a lump appeared on the scrotal skin just below the penis. On palpation, there was tenderness of the penis, a hard mass was palpated, the boundaries were not clear, the prepuce could not be retracted, when pressing around the multiple wounds, pus was seen, a hard lump was palpated on the scrotal skin just below the penis. Complete blood test was within normal limits and urinalysis showed urinary tract infection. CT Scan or MRI is not available in our clinic.

After history taking, physical examination, and supporting examination we decided to perform an operative procedure to divert urine by urethral catheterization, resolve infection, and take penile tissue for biopsy. Intra operatively we suspected penile malignancy, multiple prepuce stones and pus accumulation. The biopsy showed squamous cell carcinoma (SCC) of the penis. The patient was treated for 4 days postoperatively after which he was discharged to prepare for further treatment.



Figure 1. Preoperative view.



Figure 2. Intraoperative view (Multiple preputial stones visible)



Figure 3. Postoperative view.

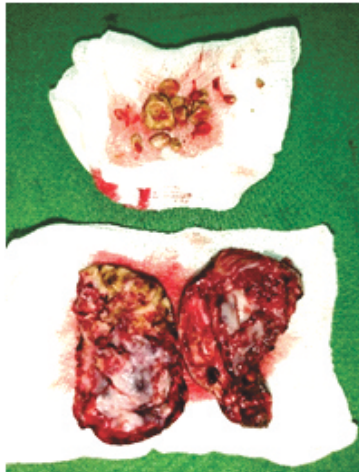


Figure 4. Excised Prepuce Tissue and Multiple Prepuce Stones.

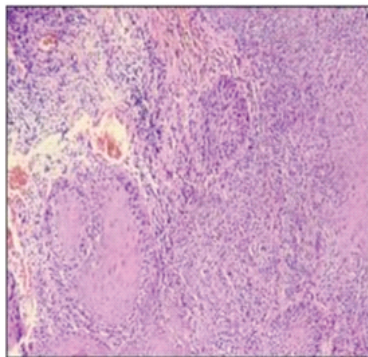


Figure 5. Histopathologi features of penile SCC.

DISCUSSION

Penile cancer is an uncommon form of cancer that affects 0.1-1% of men in affluent nations per 100,000. However, the global frequency varies significantly throughout populations based on preventive factors like standard newborn circumcision or risk factors including smoking, poor hygiene, and human papillomavirus (HPV) infection.⁹⁻¹⁰

Thomas (2019) explains phimosis is a significant risk factor for penile cancer, removing phimosis may play a major role in mediating the impact of childhood and adolescent circumcision on invasive penile cancer. This connection makes biological sense because phimosis probably causes smegma and chronic inflammation to accumulate, which raises the risk of penile cancer and preputial calculi.³

The medical literature describes preputial calculus as an uncommon clinical condition. According to Winsbury-White, there are three likely ways that preputial calculi form: (1) inspissated smegma; (2) smegma plus urine salts; and (3) concentration of urine salts alone. According to Wilford's classification, they can be classified into three groups: (1) inspissated smegma treated with lime salts; (2) struvite composition resulting from an infection; and (3) stones generated in the proximal urinary tract and becoming caught during migration.¹¹

In our case, during history taking we found that the patient had phimosis since childhood. He had frequent intermittent micturition, which healed and recurred. Palinrungi (2020) says severe phimosis is thought to be the main cause of preputial stone disease; smegma solidification and buildup of urine flow in the preputial area are additional factors.⁵

The gold standard for diagnosis of penile malignancy is penile biopsy.³ We performed a biopsy and the histopathology showed squamous cell carcinoma (SCC) of the penis. Penile SCC is the most common type of penile cancer found.³ The management of prepuce stones is to remove the stones and eliminate predisposing factors for stone formation.⁵ We removed several prepuce stones as well as removing prepuce tissue that was infiltrated with cancer cells.

In our case, penile cancer and multiple prepuce stones were found at the same time. There have not been many case reports of cases like this. Hopefully, this case can be a novelty for the development of science.

CONCLUSION

Penile cancer and preputial stones are very rare. We performed a surgical procedure to divert urine by urethral catheterisation, treated the infection and took penile tissue for biopsy. The biopsy showed squamous cell carcinoma (SCC) of the penis. The patient was treated for 4 days postoperatively after which he was discharged to prepare for further treatment.

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