

# AN UNUSUAL CASE OF PENILE TUMOR: GIANT SIZED VERRUCIFORM XANTHOMA OF PENIS

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## ABSTRACT

**Objective:** This study aims to present a case of Verruciform Xanthoma (VX) on penile shaft. **Case(s) Presentation:** A 60 years old man was admitted to our hospital with a large sized (8cm) cauliflower like tumor on his penile shaft which started to appear 2 years prior to hospital admission. The tumor was continuously getting bigger during that period. The man did not feel any other signs and symptoms. Incision biopsy sample was taken and the histopathologic result was Verruciform Xanthoma. Then the patient took excision circumcision surgery. **Discussion:** Penile VX is a benign, asymptomatic, warty lesion that can occur in penile shaft, glans, coronal sulcus, and preputium. Its pathological mechanism is still unclear but the most accepted theories are mucocutaneous reaction to localized trauma and chronic inflammation. Due to its atypical appearance, it can be mistaken as other lesion, even a malignant one. Histopathological examination must be done to confirm diagnosis, and to plan the right treatment. We conduct excision and circumcision to compensate a wide skin loss and achieved satisfactory result. **Conclusion:** Penile VX can be mistaken as a malignant lesion, thus histopathological examination must be done to avoid over radical treatment. Excision and circumcision surgery for large sized penile VX achieve satisfactory result.

**Keywords:** Penile, verruciform xanthoma, tumor.

## ABSTRAK

**Tujuan:** Mempresentasikan kasus Verruciform Xanthoma (VX) pada penis. **Presentasi kasus:** Seorang pria 60 tahun datang dengan tumor berukuran besar (8cm) berbentuk bunga kol pada penis yang mulai muncul sejak 2 tahun yang lalu. Tumor tersebut semakin bertambah besar. Pasien tidak merasakan keluhan selain rasa tidak nyaman pada penisnya yang bertambah besar. **Diskusi:** VX penis merupakan lesi jinak, tidak bergejala, yang dapat timbul pada daerah batang, glans, sulcus corona, dan preputium. Mekanisme patologisnya masih belum jelas, namun hipotesis yang diajukan adalah reaksi mukokutan terhadap trauma lokal dan inflamasi kronis. Pemeriksaan PA harus dilakukan untuk menegakkan diagnosis dan menentukan terapi yang tepat. Kami melakukan operasi eksisi dan sirkumsisi sebagai kompensasi hilangnya jaringan kulit yang luas dan mendapatkan hasil yang memuaskan. **Simpulan:** VX penis dikarakteristikkan sebagai lesi jinak asimptomatis yang berbentuk seperti kutil atau bunga kol, dan dapat disalahartikan sebagai lesi ganas. Pemeriksaan PA harus dilakukan untuk menegakkan diagnosis, dan penting untuk mencegah tindakan yang berlebihan. Eksisi dan sirkumsisi untuk VX penis yang berukuran besar mendapatkan hasil yang memuaskan.

**Kata kunci:** Penis, verruciform xanthoma, tumor.

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## INTRODUCTION

Verruciform Xanthoma (VX) is a warty lesion that most commonly occurs in oral mucosa, but in rare cases also reported in extra oral sites including in genital area (Vegas). VX of penile site is even more uncommon as there are only 31 cases reported on literature.<sup>1-2</sup> VX in penile area typically described as verrucous or papillomatous lesion that measures about 2-10mm.<sup>3</sup> Due to its appearance

penile VX can be easily mistaken as a malignant lesion, risking overtreatment. Here we present 60 years old man with an unusual case of large sized Verruciform Xanthoma in ventral side of penile shaft.

## CASE(S) PRESENTATION

A 60 years old man was admitted to our hospital with a “cauliflower-like” tumor on his penis that started to appear 2 years prior to hospital

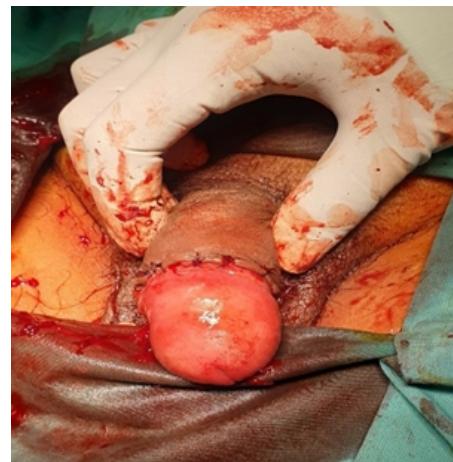
admission. The tumor was getting bigger and transforming in its shape, with its initial shape was like a small, rod-shaped lesion in penile shaft. The patient did not have any symptoms other than discomfort from his enlarged penis.

The patient was an uncircumcised man that has history of promiscuity. Patients already taken medicinal treatment both orally and topically but did not have any positive outcome. The complete blood count result was within normal range and serology test for HIV, hepatitis B, and syphilis results were negative. The lesion was solid, measured 8 cm in diameter that has rounded, verrucous, "cauliflower-like", pale pinkish colored and well demarcated appearance on the ventral side of penis. There are no hypervascularization nor erythematous signs around the lesion and no regional lymph nodes was palpable. Hematoxylin and eosin staining revealed that the epidermal layer contains proliferated squamous epithelial cells with elongated rete ridges on all of its thickness with same depth. On its squamous epithelial cells, there was groups of foamy macrophage cells with infiltration of neutrophil, also a focal necrotic keratinase with infiltration of neutrophil which concludes as Verruciform Xanthoma.

We later conducted excision and circumcision surgery under spinal anesthesia. The result was satisfying without any complication nor recurrence.



**Figure 1.** The lesion was solid, measured 8 cm in diameter that has rounded, verrucous, "cauliflower-like", pale pinkish colored and well demarcated appearance on the ventral side of penis.



**Figure 2.** The satisfying result was achieved after excision and circumcision surgery was done.

## DISCUSSION

Penile VX often described as wart-like papules or nodules with a "cauliflower-like" verrucous surface. It was first reported by Kraemer and described as a painless lesion in penile area that has distinctive characteristic structure as VX of oral mucosa.<sup>3-5</sup> Among reported cases of penile VX there are 18.5% that occur in coronal sulcus, 37% in glans, 29% in prepuce and 14.8% in penile shaft.<sup>1</sup>

The pathological mechanism of VX is still unclear. Many theories postulated including predisposing systemic or dermatologic factors and infection by HPV or bacterial.<sup>6</sup> Even though it was not done in this case, immunohistochemical staining such as p16 could be done to exclude the possibility of HPV infection.<sup>2</sup> As for now, the more accepted theories for VX are mucocutaneous reaction to localized trauma and chronic inflammation which induced epithelial keratinocytes to respond aberrantly leading to epidermal hyperplasia and foamy cell formation characterizing the VX lesion.<sup>6-8</sup> But in this case, we could not find clear indication or risk factor to support this theory.

It should be noted that VX lesions may have an atypical clinical appearance. Generally, penile VX measured for about 0,2-2,5cm, which makes our case unusual because of its extremely large size.<sup>3,8</sup> Due to its similar clinical features, the differential diagnosis may include seborrheic keratosis, verruca vulgaris, condyloma acuminatum, giant molluscum contagiosum, condyloma latum, xanthomas and squamous cell carcinoma. Thus, the histopatho-

logical examination must be done for diagnosing VX and to plan correct treatment.<sup>9-10</sup>

A Simple excision surgery show curative result in VX, thus no radical treatment was needed.<sup>2</sup> A simple shave excision with secondary healing was also reported to have good result, depends on the site and size of lesion.<sup>10</sup> We conduct circumcision to achieve aesthetic result due to wide skin loss during excision. Other reported successful treatment includes electrocoagulation, topical steroids, carbon dioxide laser, cryotherapy, wire loop electro-sectioning and radiation therapy.<sup>11</sup> As for now, there are no clear guidelines or which are the better therapy to treat VX in genital area yet. Despite good result recurrence may still present, as there are reported case of VX recurrence after incomplete excision.<sup>1</sup> Complete excision of lesion must be done to ensure no recurrence after surgery.

## CONCLUSION

VX in penis is a rare condition, especially a giant sized penile VX and can be easily mistaken as a malignant lesion. Histopathological examination is the golden standard for diagnosing VX and very important to avoid over radical treatment, as a simple excision surgery achieved a good result and no recurrence.

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