

A CASE REPORT**Presenting with Ulceration and Nodal Involvement: 2 Case Reports****Khushbakht¹, Liaquat Ali², Dayan Ur Rehman³**¹-3rd year MBBS Khyber Girls Medical College Peshawar^{2,3}-Prof of Urology & Incharge Team C, Institute of Kidney Diseases HMC/ KGMC Peshawar**ABSTRACT****INTRODUCTION**

Penile cancer which presents very rarely but is of high importance because of difficult diagnosis and therapeutic challenges. Neoplasm of the penis is relatively rare in most regions representing 0-2% of cancers worldwide **(1)**. Penile cancer as the GLOBOCAN Cancer Statistics estimated 36,068 (0.2%) new cases of penile cancer and 13,211 (0.1%) penile cancer related deaths worldwide in 2020 **(2)**. Penile cancer is rare, and the oncological details about its occurrence in under 45 are unclear and unidentified. Penile cancer in men under 45 is very rare with an incidence rate of 0.1 to 0.8/100,000 **(3)**. There are different types but most common is squamous cell carcinoma of penis which accounts for about 95% of penile cancer **(4)**. Penile squamous cell carcinoma shows prevalence of 0.1-1 per 100,000 men in high-income countries, but it constitutes up to 10% of malignancies in men in some African, Asian and South American regions (5). About 40% of penile cancers are associated with HPV infection **(5)**. Incidence of penile cancer is less than 1% in Pakistan because of the neonatal circumcision factor. The most common site for lesion is glans or foreskin (in uncircumcised male). The risk factors include HPV infection, poor hygiene, phimosis, absence of neonatal circumcision. Its early diagnosis aids in its treatment, prognosis and quality of life.

Keywords: Penile squamous carcinoma, Lymphatic metastasis, Ulcerated penile lesion, neoplasm staging**How to Cite this Article :** Khushbakht, LA, Rehman DU. Penile squamous cell carcinoma presenting with ulceration and nodal involvement: 2 case reports. **Pak J Urol. 2025;3(1):31–36.****Corresponding Author:** Khushbakht

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Ensile carcinoma of young adult is very rare but its incidence ratio is increasing day by day with no well-known cause. In this case report we presented two cases of penile squamous cell carcinoma.

Fig 1: showing 2 cases of squamous cell carcinoma of penis



CASE 1:

We reported a young adult male presented with penile lesions that was subsequently diagnosed as squamous cell carcinoma of the penis. A 26.5 years old circumcised male presented with history of fun gating ulcerative lesion on glans and distal shaft of penis, associated with bilateral inguinal lymphadenopathy. On clinical examination, there is a large ulcero-proliferative lesion with purulent discharge and mild thickening of skin over the distal part of urethra. Bilateral inguinal lymph nodes were enlarged firm, and mobile. MRI of pelvis was performed without contrast using routine protocols which showed an infiltrative mass at the glans extending into distal penile shaft, with enlarged bilateralinguinal lymph nodes. For biopsy two specimens were collected, an incisional biopsy from ulcer margin 3 and 9 o'clock position and other specimen an excised

Inguinal lymph node, bisected and examined, in which the appearance is tan white fleshy. On result for biopsies, lesion of glans penis diagnosed as moderately differentiated squamous cell carcinoma with involved multiple bilateral enlarged inguinal lymph nodes showing metastatic squamous cell carcinoma. Due to invasive nature of tumour and nodal involvement, for treatment we performed partial appendectomy with bilateral iliac lymph node dissection. Oue management went successful and patient is still healthy with no recurrence in follow up period of 1 year.

Fig 2: showing partial penectomy**Fig 3: showing inguinal lymph node dissection****CASE 2:**

A 24-year-old circumcised male presented with a 3-month history of an ulcerative, exophytic lesion on the glans penis. He had previously received empirical treatment from general practitioners, including topical antibiotics and steroid creams, without clinical improvement. A dermatologist performed a needle biopsy of the lesion, which revealed squamous cell carcinoma (SCC). On examination, a 2×2 cm fungating mass was noted on the dorsal aspect of the glans. The lesion was non-tender, with no discharge, and there was no palpable induration involving the corpora cavernosa of the distal penile shaft. Further evaluation, including MRI and staging investigations, confirmed a localized squamous cell carcinoma of the glans penis. The patient underwent wide local excision of the lesion under spinal anaesthesia without intraoperative complications. His postoperative recovery was uneventful. Histopathological analysis of the excised specimen confirmed localized squamous cell carcinoma with clear margins. The patient has remained healthy and disease-free with no evidence of recurrence or progression during a 24-month follow-up period.

Fig 4: Showing localized glandular squamous cell carcinoma of Penis

DISCUSSION:

Squamous cell penile carcinoma is very rare under 45 and is of high importance because of its difficult diagnosis. Due to its rarity, there is limited data to establish a definitive pathogenesis. Its pathogenesis is believed to develop either through malignant progression of penile intraepithelial neoplasia or arise de novo, potentially influenced by one or more associated risk factors **(6)**. Researchers observed a sustained increase in new penile cancer cases among men aged ≤ 50 years over the study period, aligned with the data provided by Office of National statistics and Cancer Research UK indicating a general rise in penile cancer diagnoses **(4)**. Its incidence is increasing with time as reported in our study in which we also diagnosed 2 young adult males aged 24 and 26 yrs. Researchers conducted study for incidence of penile cancer, conclude that the incidence of penile squamous cell carcinoma increases at a steady and moderate rate between 1956 and 2015, with the most pronounced increase observed in younger men **(7)**. As its number increases day by day and we don't know that it's due to climate change or biological change in microenvironment of tumour biology that we are seeing such a rare tumour in this young age. A cohort study was conducted for the comparison of youngsters versus older men, they reported that younger individuals were more likely to have nodal involvement and exhibits a poor cancer-specific survival compared to older men **(3)**. As reported in our case, our patient also has inguinal lymph nodes involvement showing metastatic and invasive nature of tumour. The impact of diagnosis at younger age on prognostic outcomes remains unclear, as findings from different studies are mixed **(8)**. Moreover, the increase in incidence of penile cancer in youngsters lacks a clearly established cause. Some ecological studies have linked circumcision to the risk of penile cancer. In a case-control study, they reported that neonatal circumcision—but not circumcision performed later in life—was associated with a threefold decrease in risk

of penile cancer. However, it is noteworthy that 20% of penile cancer patients had still undergone neonatal circumcision **(9)**. The predisposing factor for penile cancer is uncircumcision but as reported in our case, our patient was circumcised but despite that he got penile cancer. So, the association of circumcision and penile cancer is still unclear and need further investigations. Also the epidemiological evidence suggests the absence of neonatal circumcision as one of the strongest risk factor for penile cancer **(11)**. Circumcision may affect penile cancer incidence rate but is not the sole cause of its distribution. Evidence suggests that infant circumcision may offer a protective effect but future investigations are required to clarify its long-term impact **(10)**. A study conducted on management of penile cancer, they concluded that once the lymph nodes get involved with tumour, the prognosis significantly worsen, with reported 5-year survival of 10% to 30% **(12)**. In our case as we performed inguinal lymph nodes dissection successfully and the patient is currently disease free. For detection and therapeutic measures for penile cancer, squamous cell carcinoma antigen demonstrates limited sensitivity to indicate tumour severity but holds prognostic value for predicting disease-free survival in penile cancer patients undergoing surgical management **(13)**. For diagnostic purposes, modified (superficial) inguinal lymph node dissection and dynamic sentinel lymph node are recommended for patients with aggressive primary penile tumours and clinically nonpalpable inguinal lymph nodes **(14)**. Owing to the higher diagnostic precision of this method, we also performed inguinal lymph node biopsy for detection of nodal involvement in penile cancer. Treatment of penile squamous cell carcinoma includes surgery, chemotherapy, and radiation. Surgery remains the most effective modality but greatly affect the quality of life. Chemotherapy is effective for bulky nodes or metastases, while radiotherapy shows efficacy in HPV-positive cases **(1)**. Primary surgical treatment resulted in a 60%

overall survival rate, with follow-up from 1 month to 7 years. Treatment options, including surgery, radiotherapy, and chemotherapy, were considered in relation to penile lymphatic drainage(**15**).In our case, surgical management was preferred because of severity of the ulcerative lesion and lymph node involvement which was performed successfully and the patient has shown favourable clinical-results.

CONCLUSION:

Evidence on risk factors for penile cancer highlights several preventive measures that could be considered, include prevention of phimosis, managing chronic inflammatory conditions, limiting PUVA therapy, smoking cessation and prophylactic prevention of HPV infection.We emphasize the importance of early detection, timely biopsy, and appropriate imaging in patients with persistent penile lesions, regardless of the patient age, to

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improve prognosis and preserve penile function.

Declaration Of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appear to influence the work reported in this paper.

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