

PENILE CANCER - EXPERIENCE AT TERTIARY CARE HOSPITAL

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Abstract

Purpose: Penile cancer is a rare malignancy which accounts for <1% of adult male cancers. Phimosis, poor hygiene, smoking and human papillomavirus infection (type 16 and 18) are major risk factors for penile cancer. This analysis is to know the mode of presentation and treatment outcome of penile cancer in our setting.

Materials and Methods: We reviewed case notes of all patients who had histologically proven penile cancer from January 2005 to December 2014. Patient's demographics, predisposing factors, symptoms, type of tumour, treatment and its outcome were analysed using the Statistical Package for the Social sciences 19.

Results: A total number of 19 patients who had histologically proven penile cancer were included in the study. Circumcision was done in 16 (84.2%), while 3 (15.8%) were uncircumcised. Most of the patients presented with a lesion 16 (84.2%) and the rest 3 (15.8%) with pain. Patients having delayed presentation by 1 year were 15 (78.9%), 3 (15.8%) after 2 years and one patient (5.3%) after 5 years. Partial and total penectomy were performed in 4 (40%) patients each while wide local excision in 2 (20%) of the patients ($n = 10$). 4 (30.7%) patients had complication of treatment. The overall 5-year survival was 69.2%.

Conclusion: Penile cancer is an aggressive malignancy with generally poor outcome. There is a need of awareness amongst the masses of this cancer to detect the disease at an early stage. There is further need for specialised oncological centre to improve survival rates and outcome.

Key words: Circumcision, penectomy, penile cancer, phimosis

Introduction

In the west, penile cancer is one of the rarest malignancies which accounts for <1% of adult male cancers.^[1] On the other hand, penile cancer accounts for up to 10–20% of adult malignancies in some developing countries.^[2-4] This difference in the occurrence is mostly due to variation in ethnicity, racial groups and geographical location.^[5] Phimosis, poor hygiene, smoking and human papillomavirus infection (type 16 and 18) are major risk factors for penile cancer.^[6] On the other hand, childhood circumcision protects from the development of penile cancer and the risk is 3 times more in those

who are not circumcised.^[7] Penile cancer can present in different ways as nodule (47%), an ulcer (35%) and erythematous lesion (17%) or can be found incidentally (0.7%).^[8] Phimosis, bleeding and foul smelling discharge are the other forms of presentation for penile cancer.^[8] Glans is the most common site; others include prepuce, shaft and corona.^[8]

Penile amputation surgery and radical radiotherapy were the commonly used treatment options which resulted in poor functional outcomes as far as patients were concerned.^[9,10] This led to the development of organ-preserving surgery in localised disease such as partial glansectomy and distal corporectomy with reconstruction.^[11,12] These techniques are recommended as it has not only improved the cosmesis but also resulted in improved functional outcome and perception of body image [Figures 1-4].^[13]

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Figure 1: Penile cancer involving root and shaft



Figure 2: Per-operative picture showing both penile crura

Penile cancer metastasizes to inguinal region and about 30–60% of patients have enlarged inguinal lymph nodes at the time of presentation, amongst which 50% are infective rather than tumour metastasis.^[14] Patients having penile cancer delay in seeking medical help and it is a well-known fact that 15–50% of the patients delay it for more than a year from the time of the onset of symptoms.^[15]

There are a number of factors that are responsible for the delay, such as patient's ignorance about the disease, fear of having a disease or getting treatment with local creams. This delay is not only responsible for late presentation but also reduces the prognosis and the chance of having good cosmetic and functional results are also reduced.^[15,16] The aim of the study is to know the



Figure 3: Post-operative picture showing perineal urethrostomy and suprapubic catheter



Figure 4: 6-week post-operation

mode of presentation and treatment outcome of penile cancer in our setting.

Materials and Methods

In the Department of Surgical Oncology at Shaukat Khanum Memorial Cancer Hospital and Research Centre, we collected retrospective data from January 2005 to December 2014. Histologically confirmed penile cancers were included in the study. The information was taken from hospital information system. Data such as patients age, risk factors such as phimosis, age of circumcision, HPV and HIV infection, presenting symptoms, site of tumour, stage at presentation, histological type, presence of distant metastasis, treatment modality and its

complications and finally, last follow-up of patients were included in the study.

The statistical analysis was performed using the Statistical Package for the Social Sciences version 20. The median and ranges were calculated for continuous variables, whereas proportions and frequency tables were used to summarize categorical variables. Kaplan–Meir test was used for overall survival.

Results

A total number of 19 patients who had histologically confirmed penile cancer were included in the study. Mean age was 64.7 ± 11.02 . Most of the patients belonged to Punjab 13 (68%) followed by KPK 4 (21.1%). 16 (84.2%) patients were Muslims, 2 (10.5%) were Christians and one (5.3%) was Hindu by religion. 17 (89.5%) were smokers. 3 (15.8%) were uncircumcised and 16 (84.2%) were circumcised. Most of the patients presented with a lesion 16 (84.2%) and the rest 3 (15.8%) with pain. 15 (78.9%) patients presented after 1 year of having symptoms, 3 (15.8%) after 2 years and one patient (5.3%) after 5 years. Glans was the most common site 14 (73.3%) followed by shaft of penis 3 (15.7%). Squamous cell carcinoma remained the most common histological type 15 (78.9%) followed by 2 (10.5%) patients of verrucous carcinoma and one (5.3%) of each basal cell carcinoma and malignant melanoma. A total of 13 (68.5%) patients were treated and 6 (31.3%) refused treatment. Surgery alone was done in 6 (46.1%), surgery along with radiotherapy was done in 4 (30.7%) patients and two (7.6%) patients had only chemoradiotherapy, $n = 13$. Partial penectomy was done in 4 (40%), total penectomy in 4 (40%) and wide local excision in 2 (20%) patients, $n = 10$. Four (30.7%) patients had complication of treatment like infection 2 (15.3%) patients, and one (7.6%) patient each of skin ulceration and flap necrosis. There were 4 (30.8%) deaths, $n = 13$. The overall 5-year survival was 69.2 %.

Discussion

As compared to other malignancies of rectum, colon and oesophagus, penile cancer is not the most common in our part of the world. As is shown in our results we had only 19 patients in 10 years while being the major cancer hospital in the country. As being a Muslim predominant country, there was no correlation of penile cancer with

circumcision as most of the patients in our study were circumcised in contrast to the western literature, which points to the fact that even circumcised individuals have a lifetime risk of having penile cancer. Similarly, no correlation could be ascertained with HIV and HPV in our study. The most concerning finding in our data was the delay in presentation, which not only effects the treatment but it also worsens the quality of life of a patient. This delay in presentation is usually due to ignorance and social constraints. Treatment modalities for penile cancer include surgery, chemotherapy and radiotherapy, but surgery remains the mainstay of treatment. In majority of the cases, partial and total penectomy were performed which could have been avoided. This again points out the fact that most patients delay their presentation to hospital which not only results in extensive surgery in terms of morbidity but it also has social and psychological effects. External beam radiotherapy was used for locally advance disease in a dose of 45–50 Gy to the primary site as well as to the inguinal region. Chemotherapy regimen included cisplatin, paclitaxel and ifosfamide.

Treatment complications were also observed which included infection, flap necrosis and skin ulceration which were similar to most of the studies performed in the west. To reduce morbidity and mortality from penile cancer, we need to educate masses regarding this disease, improve hygiene and have a high index of suspicion for any chronic non healing lesion.

Conclusion

Penile cancer is an aggressive malignancy with generally poor outcome. There is a need of awareness amongst the masses of this cancer to detect the disease at an early stage. There is further need for specialised oncological centre to improve survival rates and outcome.

Conflict of Interest

The authors declare that they have no conflict of interest.

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