PENILE CANCER - EXPERIENCE AT TERTIARY CARE HOSPITAL

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Abstract

Purpose: Penile cancer is a rare malignancy which accounts for less than 1% of adult male cancers. Phimosis, poor hygiene, smoking and human papilloma virus 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.

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 tumor, treatment and its outcome were analyzed using SPSS 19.

Results: Total number of 19 patients who had histologically proven penile cancer were included. 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 one 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). Four (30.7%) patients had complication of treatment. The overall five year survival was 69.2%.

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

Keywords Penile cancer, circumcision, Phimosis, penectomy

Introduction:

In the west penile cancer is one of the rarest malignancies which accounts for less than 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 papilloma virus infection (type 16 and 18) are major risk factors for penile cancer [6]. On the other hand childhood circumcision protects from development of penile cancer and the risk is three 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 amputative 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 lead to the development of organ preserving surgery in localized disease like partial glansectomy, glansectomy and distal corporectomy with reconstruction [11,12]. These techniques are in favor as it has not only improved...
the cosmesis but also resulted in improved functional outcome and perception of body image [13].

Penile cancer metastasizes to inguinal region and about 30-60% of patients have enlarged inguinal lymph nodes at the time of presentation, among which 50% are infective rather than tumor 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 onset of symptoms [15].

There are number of factors that are responsible for the delay, like 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 [15-17]. The aim of the study is to know the 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 Center we collected retrospective data from January 2005 to December 2014. Histologically confirmed penile cancers were included. The information was taken from hospital information system (HIS). Data such as patients age, risk factors like phimosis, age of circumcision, HPV and HIV infection, presenting symptoms, site of tumor, stage at presentation, histological type, presence of distant metastasis, treatment modality and its complications and finally last follow up of patients were included.

The statistical analysis was performed using the Statistical Package for Social Sciences (SPSS) 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:

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 one 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 verrucious carcinoma, one (5.3%) of each basal cell carcinoma and malignant melanoma. Total of 13 (68.5%) of 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 chemo radiotherapy n=13. Partial penectomy was done in 4 (40%), totalpenectomy in 4 (40%) and wide local excision in 2 (20%) of patients n=10. Four (30.7%) patients had complication of treatment like infection 2 (15.3%) patients, one (7.6%) patient each of skin ulceration and flap necrosis. There were 4 (30.8%) deaths n=13. The overall five year survival was 69.2%.

Discussion:

As compared to other malignancies of rectum, colon and oesophagus, penile cancer is not the commonest in our part of the world. As is shown in the results we had only 19 patients in last ten years though being the largest 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 life time 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
because of 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 (ERBT) 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. In order to reduce morbidity and mortality from penile cancer we need to educate masses regarding this disease. Improve hygiene and should 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 among the masses of this cancer in order to detect the disease at an early stage. There is further need for specialized oncological center in order to improve survival rates and outcome.
References: