

ORIGINAL RESEARCH

A CLINICAL STUDY AND MANAGEMENT OF CARCINOMA PENIS IN TERTIARY CARE CENTRE

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ABSTRACT

Background: Carcinoma of penis is a malignancy with wide range of clinical and pathological presentation. Disease ranges from local primary lymph node infiltration to distant metastasis. Although rare in western countries, constitutes a major substantial health concern in many developing countries including India. Proper evaluation of both the primary lesion and lymph nodes is critical because nodal involvement is the most important factor for survival. This study undertaken to study incidence with age, religion and SES and to study risk factors and its management.

Methods: A descriptive study was conducted among 30 patients proven carcinoma penis in KR hospital Mysuru during period from November 2017 to June 2019. Data was collected with meticulous history clinical examination and appropriate investigation and follow up of the patient.

Results: In our study the maximum incidence was found to be in the age group of 50 to 70. youngest was 35 year and oldest was 76 year old. Muslims were free of diseases due early circumcision and all cases were hindus. In our study 86.6% of the patients associated with carcinoma penis were smokers. Commonest symptom of presentation was proliferative growth (76%). The most common site of origin was Glans penis. The average time interval between onset of symptoms and seeking medical advice is 7 months. The most common surgery performed was partial penectomy 73.3% and majority biopsy report was SCC. Moderately and poorly differentiated tumors had a very strong association with nodal involvement.

Conclusion: Carcinoma penis can be avoided by better penile hygiene and circumcision. It is a curable disease, if detected early and treated properly. The surgery is the mainstay of treating the carcinoma of penis. Creating awareness in public is the only way to reduce the mortality and morbidity due to carcinoma of penis.

Keywords: Carcinoma of Penis, Proliferative Growth, Glans Penis

INTRODUCTION

Penis is the male external genital organ designed to serve the purpose of reproduction and excretion of urine during the act of micturition as provided by nature. As a matter of fact, penis is liable to be affected by various lesions like inflammatory, infective, traumatic and neoplastic both benign and malignant. Majority of the lesions are preventable and statistical evidence shows predominance of lesion in the illiterate and low socio-economic group. Any lesion that affects the penis has great depths of affection on mental, psychological and social integrity of the individual. This study was about 30 malignant lesions of penis treated in Mysore medical college and research institute, during the period November 2017 to June 2019.

Penile cancer constitutes a major health problem in many countries in Asia, Africa and South America, where it may comprise up to 10% of all malignancies. Penile cancer is rare in developed countries and varies worldwide with age, circumcision and hygiene practices. The incidence of penile cancer increase with age. The peak age is during the sixth decade of life, though the disease occur in younger men less than 40years age. The stage at presentation also differs in developing countries and most of them present in late stages due to multiple factors. Though newer approaches like topical agents, Mohs micrographic surgery, laser therapy and radiotherapy may be used in early stages, surgery has remained the gold standard in carcinoma penis for many years.

The prospect of losing a part or the entire penis has been a cause of considerable distress in patients with carcinoma penis. Hanash and colleagues have reported on 3 patients who committed suicide after penile amputation. "But if a cancer should infect the penis, the morbid parts are, in that case, to be immediately divided from the rest, to prevent the disorder from spreading into the adjacent sound parts, to the destruction of the patient." -Heister's surgery, 1739.

Carcinoma penis is one of the few diseases that, when metastatic to regional lymph nodes, can be cured by regional lymphadenectomy. Involvement of the inguinal lymph nodes is the single most important prognostic factor and ilio-inguinal block dissection offers high survival rates. The difficulty in the regional node management in carcinoma is that 50% of the clinically palpable nodes at presentation were due to infection and turn to be pathologically negative and 20% of clinically negative nodes at presentation harbor microscopic metastasis and prove positive pathologically. However, ilioinguinal block dissection cannot be applied blindly to all patients of carcinoma penis as many of them may not warrant it and the procedure itself carries its own morbidity and complications. Hence proper selection of patients is required to identify those who require regional lymphadenectomy in spite of clinically impalpable nodes and those who do not require regional lymphadenectomy in the node negative as well as the clinically node palpable group.

This study analyses the clinical and post-surgical histopathological status of the nodes in both clinically positive and negative nodes at presentation. This study also analyses the various epidemiological, etiological, pathological factors, clinical presentation and the management options for the primary lesion and the regional lymph nodes.

OBJECTIVES OF THE STUDY

1. To study the incidence of disease in relation with age, religion and socioeconomic status
2. To study etiological factors and risk factors.
3. To study various methods of management and its complications.
4. To study comparison between clinical staging and radiological staging.

MATERIALS AND METHODS

This was a descriptive study conducted among 30 patients with carcinoma penis admitted in K.R HOSPITAL attached to MMCRI, Mysore from November 2017 to June 2019 satisfying all the inclusion criteria mentioned below after obtaining consent and clearance from the ethical committee

INCLUSION CRITERIA

1. All patients admitted with penile lesions and proved to have carcinoma penis after biopsy were included in the study.
2. Patients willing to participate in the study

EXCLUSION CRITERIA

1. All patients admitted with penile lesions on biopsy diagnosed to have conditions other than malignancy.
2. Patients not willing to participate in the study.

Data was collected from 30 patients with carcinoma penis satisfying the inclusion criteria mentioned above with meticulous history taking, clinical examination and appropriate radiological, serological, histopathological, operative procedures and followed up for a period of minimum of 6 months to 1 year at regular intervals during the period of November 2017 to June 2019.

INVESTIGATIONS

- Routine Investigations –Hb%, TC, DC,BT,CT, ESR, RBS, B.Urea, S. creatinine,ECG
- Biopsy
- FNAC
- Investigations to rule out metastases- USG abdomen, LFT, X-ray Chest,
- Skeletal X-ray (if required).
- Post operative histopathological report.

Ethical clearance is obtained from MMCRI ethical committee on human subject.

RESULTS

The present study was conducted in K R HOSPITAL attached to Mysore medical college and research institute, Mysuru. A total of 30 patients satisfied the selection criteria were involved in the study, analysis was done and the findings were tabulated.

AGE WISE INCIDENCE

In our study the peak incidence in 61 – 70years. Minimum age was 35 years and maximum age 76 years.Average age was58.3.

RELIGION

All 30 cases in my study belongs to Hindu religionandmuslims were free of the disease due to early circumcision.

RISK FACTORS**A) SMOKING**

Smoking is a direct risk factor for ca penis is evident from above result with 86% of patients were smokers.

B) HIV STATUS

In my study 2 patients were found to be positive for HIV and developed carcinoma penis with incidence of 6.6%

C) PHIMOSIS

In my study 2 patients had history ofphimosis and turned out to be malignancy after dorsal slit and HPE, with incidence of 6.6%.

D) SOCIOECONOMIC STATUS

In our study out of 30, 29 patients belongs to low socioeconomic status andmost of them wereuneducated and with poor or negligentattitude towards personal hygiene.

SYMPTOMS AT PRESENTATION

Majority of the patients with carcinoma penis presented with proliferative growth followed by ulcer, discharge, and urinary symptoms.

DURATION OF SYMPTOMS

The average duration of symptoms in our patients was 7.1 months. Our patients ignore the symptoms for a long time. Patients with an ulcer and dischargecome early than a patient with proliferative lesion.Younger patients seek medical attention much earlier than older patients. No strictcomparison was possible as the duration of symptoms depend on many factors like literacy,socioeconomic status, accessibility.

SITE OF ORIGIN

The most common site of origin in our study was the Glans in 66% of cases.This result confirms the literature reports that glans was the most common site.

Type	Number	%
Ulcer	7	23.3
Proliferative Growth	23	76.7

Table 1.Type of lesion

TREATMENT

Majority of the patients underwent partial penectomy followed by total penectomy with perineal urethroplasty and only one underwent glanssectomy.

HPE REPORT

Biopsy reports of majority of patients were reported as squamous cell carcinoma (28 cases)

1. HISTOPATHOLOGICAL GRADING

Grade 1 well differentiated-18

Grade 2 moderately differentiated-9

Grade 3 poorly differentiated-3

LYMPH NODE DISSECTION

Out of 30 cases 6 patients showed metastasis to inguinal lymph nodes. 4 patients underwent ilioinguinal block dissection on one side and HPE showed positive for metastatic deposits.

Rest 2 other patients not fit for inguinal surgery and referred for RT/CT following treatment of primary.

FACTORS ASSOCIATED WITH NODAL INVOLVEMENT

Only the pathologically involved nodes were taken up for analyzing the associated factors. Of the 6 patients who had pathologically positive nodes in our study the underlying factors were studied.

Morphology	Node positive	Node negative
Ulcer	1	6
Growth	5	18
Total	6	24

Table 2. Type of lesion

Age	No. of Cases	No. of Nodes Positive Cases	Percentage
30 – 40	2	1	50
41 – 50	7	1	14.2
51 – 60	8	1	12.5
61 -70	10	2	20
71 – 80	3	1	33
Total	30	6	20

Table 3. Age

Grade	Node +VE	Node -VE	%
Well differentiated	1	18	5
Moderately differentiated	5	9	55
Poorly differentiated	0	3	

Table 4. Grade of tumour

POSTOPERATIVE COMPLICATIONS

Primary lesion was secondarily infected in many cases. Meatal stenosis and urethral stricture was observed in 2 cases. All underwent instrumental dilatation.

After inguinal block dissection immediate postoperative wound infection was observed in two cases and seroma in one case for which drain had been kept for longer duration. Flap necrosis and lower limb edema seen in one case each.

FOLLOW UP

The cases were followed for a period of 6 months to 1 years. For primary lesion 2cm clearance was adequate in all cases of partial amputation and no recurrence was noted.

Only one patient had recurrence at primary lesion with right inguinal metastatic ulcer who underwent partial penectomy previously followed by total amputation of penis 1 year back. Several factors like T stage, grade of the tumor, size of lesion and morphological type, whether ulcerative or proliferate play a role.

DISCUSSION

Penile cancer constitutes a major health problem in many countries including India. The age wise incidence in western studies show peak incidence in 60-70 years. In our study also the peak incidence was noticed in 61 – 70 years age group. Minimum age was 35 years and maximum age 76 years. Maximum number of cases seen in age group of 50 to 70, around 20 cases. All 30 cases in the present study belong to Hindu religion and Muslims were free of the disease due to early circumcision. In this study out of 30 patients, 29 belong to low socioeconomic status and most of them were uneducated with poor or negligent attitude towards personal hygiene and 2 of them found to be positive for HIV.

Majority of the patients with carcinoma penis presented with proliferative growth followed by ulcer, discharge and urinary symptoms. The average duration of symptoms at presentation in this study was 7.1 months. In contrast the western studies show an average duration of symptoms to be less than 3 months. Our patients ignore the symptoms for a long time. Patient with an ulcer and discharge come early than a patient with proliferative lesion. Younger patients seek medical attention much earlier than older patients. No strict comparison was possible as the duration of symptoms depend on many factors like literacy, socioeconomic status, accessibility.

In this study group 66% of cases developed lesion in the glans. This result confirms the literature reports that glans was the most common site. The lesions were either ulcerative or proliferative. Ulcerative lesion was seen in 7 cases and proliferative in 23 cases. Ulceroproliferative cases were taken as proliferative lesions.

Majority of the patients underwent partial penectomy followed by total penectomy with perineal urethroplasty and only one patient underwent glansectomy.

Biopsy reports of majority of patients came as squamous cell carcinoma (28 cases) and 60% of them showed well differentiated tumors. Among 6 inguinal lymph node positive cases 5 were moderately differentiated and one was well differentiated.

Involvement of the inguinal lymph nodes was the single most important prognostic factor and ilio-inguinal block dissection offers high survival rates. Out of 30 cases 6 patients showed metastasis to inguinal lymph nodes. 4 patients underwent ilioinguinal block dissection on one

side and HPE showed positive for metastatic deposits. Rest two were not fit for inguinal surgery and referred for RT/CT following treatment of primary.

Primary lesion was secondarily infected in many cases. Meatal stenosis and urethral stricture was observed in 2 cases and underwent instrumental dilatation. After inguinal block dissection immediate postoperative wound infection was observed in two cases and seroma in one case for which drain had been kept for longer duration. Flap necrosis and lower limb edema seen in one case each.

The cases were followed for a period of 6 months to 1 years. For primary lesion 2cm clearance was adequate in all cases of partial amputation and no recurrence was noted.

Only one patient had recurrence at primary lesion with right inguinal metastatic ulcer who underwent partial penectomy previously followed by total amputation of penis 1 year back.

CONCLUSION

The carcinoma of penis occurs more common in the age group between 50-70 yrs. The neonatal circumcision is the only way to prevent the carcinoma of penis. The early diagnosis and treatment decrease the mortality and improve the survival rate. The surgery is the mainstay of treating the carcinoma of penis. The other modalities of treatment were adjuvant not the main treatment. Creating awareness in public is the only way to reduce the mortality and morbidity due to carcinoma of penis. Carcinoma penis can be avoided by better penile hygiene and circumcision. It is a curable disease, if detected early and treated properly. Circumcision has a definite role in prevention of development of Carcinoma penis.

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