

Original Research Article

Study on Incidence, Types and Treatment Options of Carcinoma Penis

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Abstract: Carcinoma penis is a common malignancy. Accounting for upto 10% of all cancers in uncircumcised male population in Asian countries. Carcinoma penis is almost unheard of races like the jews, who practice neonatal Circumcision. A very low incidence occurs in Muslims who undergo circumcision at around school going age. Squamous cell carcinoma accounts for at least 90% of all penile malignancies. 5% is constituted by adeno carcinoma Rest 5% by melanoma, Basal cell carcinoma & Sarcoma. It usually presents in sixth decade of life. It could be prevented or diagnosed early in most cases. The aim of the Study is to analyze the incidence, types, presenting symptoms and treatment of carcinoma penis. During 2009 and 2010 for a period of two years, 33 cases were admitted for treatment of carcinoma all the 33 cases were studied in detail with detailed clinical examination and special investigations like skin tests, serology, culture and special stains were done only wherever required. Histopathological examination of the primary lesion was done. The maximum incidence age group is found to e 41 – 50 years. About 21 cases reported as a papillary variety and the rest 12 cases reported as a flat variety which means 64% of cases reported as a papillary one and the rest 16% as flat one. Patients of the 58% patients with flat variety had regional lymph node metastasis whereas 68% out of the papillary pattern had regional lymph node metastasis. The bulk of patients in this study presented primarily for a growth in penis in 85% of cases. The treatment for the primary cancer, depending on the extent of lesion in the penis, one of the following three surgeries was done. Partial amputation was done in 11 patients and total amputation with perinea urethrostomy with emasculation in 12 cases and without emasculation inurethrostomy with emasculation in 12 cases. Age incidence of Carcinoma penis is high in fifth decade. The commonest site of distribution in carcinoma penis is Glans. Ulcer proliferative lesion was the commonest presentation in carcinoma penis. The majority of cases were of squamous cell carcinoma. The prognosis depends upon the stage and nodal status at presentation. Partial Amputation was done for stage I; Total Amputation for stage II; surgery alone or surgery and radiotherapy for stage III. Radiotherapy and Chemotherapy in combination with surgery or alone for stage IV disease.

Keywords: Carcinoma penis, Squamous cell carcinoma, Nodal status

INTRODUCTION

Carcinoma penis is a common malignancy. Accounting for up to 10% of all cancers in uncircumcised male population in Asian countries. Carcinoma penis is almost unheard of races like the jews, who practice neonatal Circumcision[1]. A very low incidence occurs in Muslims who undergo circumcision at around school going age. Squamous cell carcinoma accounts for at least 90% of all penile malignancies. 5% are constituted by adeno carcinoma. Rest 5% by melanoma, Basalcell carcinoma & Sarcoma. It usually presents in sixth decade of life. It could be prevented or diagnosed early in most cases but for cultural and educational reasons it is often diagnosed later[2]. Delay in diagnosis and treatment are critical, because the stage at presentation appears to be the most important prognostic indicator for survival.

Embryologically, the three erectile bodies of the penis arise from the paired genital tubercles (corpora cavernosa) and the paired urethral folds, or the caudal portion of the urogenital sinus (corpus spongiosum). The corpus spongiosum expands distally, the glans formed. The prepucearises as a continuation of the skin of the penis. The penis is divided into three portions the root, the body and the glans the root of the penis resides within the superficial perineal pouch and is the primary fixation point of the penis. The body of the penis is comprised of the three erectile bodies and the overlying tissues, including the skin. The glans penis constitutes the remaining portion. Penile cancer is uncommon, but, when it is diagnosed, it is psychologically devastating to the patient and often presents a challenge to the urologist[3]. Benign, premalignant, and malignant conditions must be differentiated. Penile squamous cell

carcinoma, the most common penile malignancy, behaves similarly to squamous cell carcinoma in other parts of the skin. Metastasis, which is possible with this type of carcinoma, is often lethal. Penile cancers usually begin as small lesions on the glans or prepuce. They range from white-grey, irregular exophytic to reddish flat and ulcerated endophytic masses[4]. they gradually grow laterally along the surface and can cover the entire glans and prepuce before invading the corpora and shaft of the penis. The more extensive the lesion, the greater the possibility of local invasion and nodal metastasis. Penile cancers may be papillary and exophytic or flat and ulcerative. Untreated, penile auto amputation can occur[5].

MATERIALS AND METHODS

During 2009 and 2010 for a period of two years, 33 cases were admitted for treatment of carcinoma penis in the department of surgery at Government Stanley Medical college Hospital, Chennai. All the 33 cases were studied in detail with detailed clinical examination and special investigations like skin tests, serology, culture and special stains were done only wherever required. Histopathological examination of the primary lesion was done by edge biopsy before preceding to treatment all the cases were subjected to surgery, chemotherapy and radiotherapy either singly or in combination depending upon the clinical stage. Wedge biopsy is done, for diagnosis and grading of differentiation. Radiology of chest and bones may provide evidence of metastasis. Isotope scanning is also useful to find out metastasis. IVU is only indicated if there is suspicion of ureteric obstruction secondary to retro peritoneal lymphadenopathy. The role of penile lymphangiography to detect nodal secondaries is not well established as distinction between inflammatory and metastatic lesions is difficult, particularly in the inguinal/iliac region. of abdomen and pelvis is indicated only if large nodes are present in the inguinal region, the lesion is high grade or if bimanual examination shows a lateral pelvic mass. Ultra sound also has been used in the evaluation of penile cancer. Sonographic appearance of the primary tumor allowed determination of an appropriate level for amputation with a 2 cm margin of normal tissue. MRI is capable of imaging in any plane. MRI detects disruption of the tunica albuginea and destruction of the septum between the corpora cavernous. The study was carried out after getting approval from Institutional Ethical committee, Stanley Medical College, Chennai.

RESULTS

All the 33 patients who reported with disease were included in finding out the age incidence

Table 1: Age incidence

Age groups	No. of patients	Percentage
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31 – 40	3	9
41 – 50	13	40
51 – 60	6	18
61 – 70	9	27
71 – 80	2	6

Legend1: The maximum incidence age group is found to e 41 – 50 years. This conforms to the findings of Srivatsava 1963 (Indian Journal ofSurgery). Hindus are commonly affected and non-circumcised individual predominate in this cancer group onfirming the etiological relationship.

All of them were squamous cell carcinoma (well, moderate &poorly differentiated) Next, the growth pattern of the cancer was taken up for study. The growth pattern was analyzed either as papillary, an ulcero-proliferative variety or as a flat, an ulcerative variety.

Table 2: Primary Type of Cancer

Growth Pattern	No Of Cases	Percentage
Papillary	21	64
Flat	12	16

Legend 2: About 21 cases reported as a papillary variety and the rest 12cases reported as a flat variety which means 64% of cases reported as a papillary one and the rest 16% as flat one. Patients of the 58% patients with flat variety had regional lymph node metastasis whereas 68% out of the papillary pattern had regional lymph node metastasis

The primary symptoms at presentation of all 33 cases were recorded. Patients who reported in this study presented with one of the following

Table 3: Primary Symptom at Presentation

Primary symptom at presentation	No. Of cases	Percentage
Growth penis	28	85
Inguinal mass/fungation	2	6
Itching under prepuce	2	6
Phimosis	1	3

Table 4: Treatment for Primary Tumour

Surgery no of cases	No. Of cases
Partial Amputation	11
Total Amputation with perineal urethrostomy with emasculation	12
Without emasculation	10

DISCUSSION

The bulk of the patients with the disease to the 40 – 70 years age group and as in the literature; it is

uncommon below 40 years of age. The mean age at diagnosis is around 53% which is just three years lower, as given in the literature[6]. The association between absence of circumcision and the disease is already well established. And also from this study, it has been clearly seen that circumcision of the disease[7]. The growth patterns of the cancer have specific significance. The type of the growth pattern has been correlated with the frequency of regional lymph node metastasis. Patients with a flat growth pattern have a greater incidence of inguinal lymph involvement. In this study, to our surprise it was the papillary variety that had more regional lymph node involvement than the flat pattern[8]. The primary symptom at presentation in most of the patients in this study was with a growth in their penis. The shyness on this part of the patient brings them at a later date with a full blown growth in the penis with or without regional lymph nodes[9]. The primary site of location of cancer penis is in the glans in this study, which very well correlates with that in literature. Second most common site is prepuce. The primary cancer was managed depending on the extent of the lesion whilst treating the primary; an inguinal node picking was carried out in patients with significant nodal enlargement[10]. The cases with positive inguinal metastases on histopathological examination were preceded with an ilioinguinal block dissection[11]. From this study, it is clear that, not many patients turn for follow up. Hence, the occurrence of nodal disease in their late stages becomes much more common. Again, the peak at which the recurrence of malignancy occurs is around the one year mark which clearly indicates that follow up till the first year has to be intensified in our patients[12].

CONCLUSIONS

The Age incidence of Carcinoma penis is high in fifth decade. Commonest size of distribution in carcinoma penis is Glans. Ulceroproliferative lesion was the commonest presentation in carcinoma penis. The majority of cases were of squamous cell carcinoma. The average interval between the onset of disease and the presentation is 8.2 months. Maximum number of cases presented to the hospital in stage III disease. The prognosis depends upon the stage and nodal status at presentation. Partial Amputation was done for stage I; Total Amputation for stage II; surgery alone or surgery and radiotherapy for stage III. Radiotherapy and Chemotherapy in combination with surgery or alone for stage IV disease.

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