



CLINICAL STUDY AND MANAGEMENT OF CARCINOMA OF PENIS

General Surgery

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ABSTRACT

To study the clinical presentations, surgical management and its outcome, complications associated with penile carcinoma, a total of 20 patients with Penile carcinoma were admitted, investigated, operated and followed up. All the information was taken down in the proforma designed for the study. Final outcome evaluated. The study was conducted from Oct 2016 to Oct 2018 in MGM Hospital, Warangal. In the study it was noted that the Carcinoma of penis has an incidence of 1.6% of all malignancies, maximum incidence was found in 5th decade of life (45%). Phimosis is present in 60% of cases.

KEYWORDS

Carcinoma Penis, Inguinal lymphnodes, Phimosis, Glans.

INTRODUCTION:

Carcinoma of the penis is an uncommon malignancy in Western countries, representing 0.4% of malignancies in males and 3.0% of all genitourinary cancers. However, 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 because Patients with penile cancer, more than with other types of cancer, seem to delay seeking medical attention. Carcinoma of the penis is quite prevalent in this region of Telangana which is still backward and the majority of people of Telangana are poor, illiterate and exposed to sexually transmitted diseases. Carcinoma penis is potentially curable if detected and treated early. Quite a number of patients refuse mutilating amputation (partial / total) of penis out of ignorance, social and sexual reasons. Since much can be done both for its prevention and cure an attempt has been made in this study to look into various effective treatment modalities currently available for the management of carcinoma penis. It most commonly presents in the sixth decade of life but may occur in men younger than 40 years. The clinical spectrum of penile cancer is varied, subtle areas of erythema or induration to a frankly ulcerated, fungating, foul-smelling mass. The lesion initially involves the prepuce and glans, often under a tight phimotic ring. In late stages involvement and eventual destruction of the shaft of the penis are seen. Urethral involvement is usually a late feature, and even in advanced stages urethral obstruction is rarely seen.

More than 95% of penile carcinomas are squamous cell in origin. This malady affects uncircumcised with phimosis and poor local hygiene. It is rare in Mohammedans and Jews who are circumcised early in their life. Schoen and colleagues (2000).

MATERIALS AND METHODS: This study was done at MGM hospital Warangal from Oct 2016 to Oct 2018. During this period all those cases diagnosed with penile carcinoma were taken into study and a total of 20 cases were studied. The study was conducted to find out the

- Incidence
- Various types of carcinoma penis
- Clinical presentation
- Prevalence of risk factors
- Efficacy of various modes of treatment in the management of carcinoma penis patients.

Details of history, physical examination, investigations, management and follow up were recorded. Routine follow up was done during the immediate post-operative period and every day till discharge. Attention was paid to note the development of any complications, treatment was administered from time to time according to the needs of patients.

ANALYSIS OF RESULTS:

Twenty patients who were treated for carcinoma penis from Oct 2016 to Oct 2018 in MGM Hospital, Warangal were included for analysis.

HOSPITAL INCIDENCE: Total number of male cases admitted in MGM Hospital during Oct 2016 to Oct 2018 is 49,424.

Incidence of Ca. Penis in male hospital admissions = 0.0404%
Total number of male cancer patients admitted = 431

Incidence of carcinoma penis among male cancer patients = 4.64%
Reddy et. al from Vishakhapatnam reported an incidence of 6.9 in Vizag and 13.76% of all male malignancies.

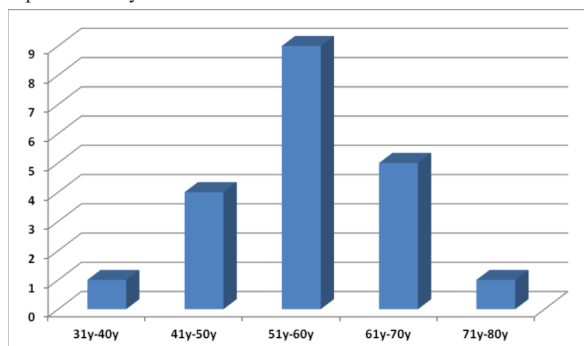
Checkler et. al (1990) reported an incidence of 0.4% - 0.6% of all male cancers in USA.

AGE INCIDENCE

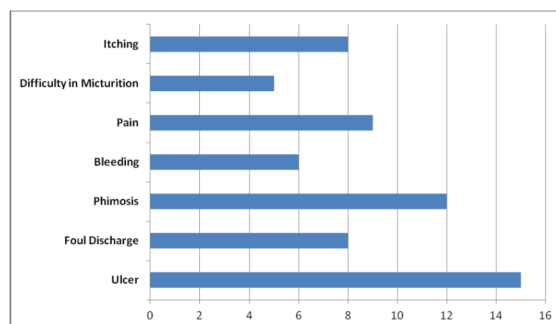
The peak age incidence is in fifth and sixth decade. Youngest patient is 32 years old and oldest is 71. Maximum number of cases was seen in the age group of 5th decade. This coincides with the incidence given by various western authors.

Mean age of Ca. Penis in our study is 57 years.

Guere et. al (1973) reported a mean age of 58 years and Derrick reported as 55 years.



SYMPTOMATOLOGY:



ANTECEDENT GENITAL LESIONS:

History of phimosis was present in 12 patients, 8 patients had no phimosis and only

3 patients underwent circumcision in adulthood. None underwent circumcision in childhood.

History of Balanoposthitis was present in 9 patients
History of exposure to STD is present in patients
History of HBsAg positive in 2 cases
VDRL was positive in 2 patients

PRESENTATION OF LESIONS:

Ulcerative growth 14 patients
Ulcer 5 patients
Ulcer hidden under Phimosis 1 patient.

SITE OF LESION:

Site	Number of patients
GlansPenis	12 patients
Prepuce	5 patients
Shaft	1 patient
Corona	2 patients

In this series the glans penis was the most frequent site affected by carcinoma penis is glans followed by prepuce. This can be attributed to the fact that glans is more sensitive to irritation produced by collected smegma and chronic balanitis giving rise to changes in surface epithelia resulting in metaplasia and neoplasia.

Heynes et. al in South African Journal of Surgery Aug 1997 reported T2 lesions comprising 48%.

INGUINAL LYMPHADENOPATHY:

Significant lymphadenopathy was seen in 14 of 20 patients of which 8 cases had unilateral, 5 cases bilateral nodes. 2 of the unilateral and 4 of bilateral nodes persisted after treatment with antibiotics for 4 weeks and are positive for metastasis on FNAC.

S.NO	Nodal status	clinical	FNAC+VE	FNAC-VE
1	Unilateral N1	8	2	6
2	Bilateral N2	6	4	2
3	Pelvic N3	0	0	0

CLINICAL STAGING (TNM):

Sarin et. al (UK) reported prevalence of stage I lesion as 36%, stage II as 18%, stage III as 28%

In our study, prevalence of stage I is 10%, stage II is 60%, stage III is 30%, stage IV is 0%.

STAGE	No	%
I	2	10
II	12	60
III	6	30
IV	0	0

TREATMENT AND FOLLOW UP:

Surgical treatment:

Nature of surgery	No of patients	Percentage
Circumcision	0	0
Partial Penectomy	10	50
Total penectomy with perineal		
Urethrostomy	4	20
Emasculum with block		
Dissection	6	30

Radiotherapy:

No patient was subjected to radiotherapy as all cases were operable.

COMPLICATIONS:

Complication	No. of patients	Management
Wound infection	6	Antibiotics
Flap necrosis	5	ASD and SSG for 3 cases, secondary suturing for 2 cases
Lymphedema	3	Limb elevation crepe banding

4 patients had meatal stenosis; urethral dilatation done.

OBSERVATION AND CONCLUSIONS:

Carcinoma of penis has an incidence of 1.6% of all malignancies and 4.6%

of all male malignancies in our hospital.

Carcinoma penis was not found in first two decades of life. Youngest patient was 32 years old and oldest was 71 years old. Maximum incidence was found in 5th decade of life (45%).

In majority of patients the presenting complaint was an ulcerative growth.

Most patients presented between 3 months to 1 year of onset of symptoms. Modesty, ignorance and poverty on the part of the patient are main causes for the delay. It should be impressed upon the people that early detection and adequate treatment offer better prognosis.

Phimosis is present in 60% of cases. History of sexually transmitted diseases and multiple sexual partners was present in 70% of cases.

Carcinoma of penis rarely involved urethra. In our series, glans was the most frequent site of involvement 55%.

Ultrasound of abdomen and pelvis was found to be useful in locally advanced cases to pick up pelvic node enlargement. However, none of the patient had pelvic lymphadenopathy.

Very early cases with lesion localized to prepuce can be treated by circumcision when a margin of 1cm of healthy tissue is available proximal to growth. Those lesions limited to the glans and have not spread to the shaft should be treated either with radiation moulds or by partial amputation of penis. It prevents a great psychological trauma which is common after total amputation of penis.

When the shaft is infiltrated up to the root of penis, and when it is not possible to leave behind 2 cms healthy stump, total amputation of penis is the treatment of choice. It is combined with bilateral Orchiectomy. When the growth has already spread to the root of the penis and the prepubic region, emasculation with postoperative radio therapy should be added.

Most of the patients during follow up complained of difficulty in passing urine due to meatal stenosis. During regular follow up, urethral dilatation was done.

In the present study, 14 patients had inguinal lymphadenopathy at presentation. However, 8 of them regressed after 4 weeks course of antibiotics showing inflammatory nature of the lymph nodes. 6 of the patients had lymph node positive for metastasis. Most of the unilaterally enlarged nodes regressed (87.5%). In bilaterally enlarged nodes, only 33% regressed. Pathologically positive nodes mostly presented with ulcer type of lesion.

Bilateral block dissection is recommended for unilateral adenopathy at the time of presentation, because there is 50% chance of metastasis.

Flap necrosis and postoperative lymphedema were found to be the most common complications of inguinal dissection.

FNAC or frozen section proved metastatic nodes should be removed by block dissection. Advanced (fixed node, more than 4 cm node) lesions should be treated by combination chemotherapy followed by surgery or radio therapy.

Patients who undergo surgery for carcinoma penis should be explained the need for regular follow up and self-examination of groin to detect early regional nodal metastasis so that they can be managed appropriately.

REFERENCE

- Langman medical embryology; chapter 14 – Urogenital system; 349 – 352
- Gray's Anatomy: The anatomical basis of clinical practice 41th ed; Susan, Standing; Ch 100
- Pettaway MD; Raymond S. Lance MD; John W. Davis MD Campbell-Walsh Urology, 11th Edition (2015) 901-e230:10.1016/B978-1-4160-6911-4
- DeVita, Vincent T.; Lawrence, Theodore S.; Rosenberg, Steven A.; DeVita, Hellman and Rosenberg's Cancer: Principles & Practice of Oncology, 10th Edition. Cancers of the Genitourinary System > Section 7: Cancer of the Urethra and Penis
- Madsen BS, van den Brule AJ, Jensen HL, et al. Risk factors for squamous cell carcinoma of the penis—population-based case control study in Denmark. Cancer Epidemiology Biomarkers Prev. 2015; 17: 2683-2691
- Morris BJ. Why circumcision is a biomedical imperative for the 21st century. Bioessays. 2015; 29: 1147-1158
- Moses S, Bailey RC, Ronald AR. Male circumcision: assessment of health benefits and risks. Sex Transm Infect. 1998; 74: 368-373

8. Dillner J, von Krogh G, Horenblas S, et al. Etiology of squamous cell carcinoma of the penis. *Scand J Urol Nephrol Suppl.* 2000; 205: 189-193
9. Persson B, Sjödin JG, Holmberg L, et al. The national penile cancer register in Sweden 2000-2003. *Scand J Urol Nephrol.* 2014; 41: 278-282
10. Curado MP, Edwards B, Shin HR, et al, eds. Cancer incidence in five continents. Vol. IX. Lyon: IARC Scientific Publications; 2014, No. 160
11. Maden C, Sherman KJ, Beckmann AM, et al. History of circumcision, medical conditions, and sexual activity and the risk of penile cancer. *J Natl Cancer Inst.* 1993; 85: 19-24
12. Harish K, Ravi R, The role of tobacco in penile carcinoma, *Br J Urol* 1995; 75: 375-377
13. Tseng H-F, Morgenstern H, Mack T, et al. Risk factors for penile cancer: results of a population-based case-control study in Los Angeles country (United States). *Cancer Causes Control* 200; 12: 267-277
14. Schoen EJ, Oehrli M, Colby C, et al. The highly protective effect of newborn circumcision against invasive penile cancer; *Paediatrics* 2000; 105: E36
15. Morris BJ, Rose BR. Cervical screening in the 21st century: the case for human papilloma virus testing of self-collected specimens. *Clin Chem Lab Med.* 2007; 45: 577-591.