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CARCINOMA PROSTATE WITH CARCINOMA PENIS: RARE CASE OF DUAL PRIMARY UROLOGICAL MALIGNANCY

Urology

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ABSTRACT

Synchronous malignancies are an uncommon finding in urology. A penile lesion in a patient of carcinoma prostate is an uncommon is generally a metastasis with incidence of <0.1%. Here we present a case of synchronous primary urological malignancies of squamous cell carcinoma of penis and adenocarcinoma prostate. Synchronous malignancies should be considered on an individual basis and therapeutic choice should aim to provide minimal possible morbidity with maximum efficacy without compromising oncological outcomes.

KEYWORDS

INTRODUCTION:

Synchronous malignancies are an uncommon finding in urology. While a penile lesion in a patient of carcinoma prostate is an uncommon but known site of metastasis (<0.1%) {1}, here we present a case of synchronous primary urological malignancies of Squamous cell carcinoma of penis and adenocarcinoma prostate.

CASE PRESENTATION:

A 70 yr. old gentleman visited us complaining of a painless gradually progressive lesion on the glans penis. He had undergone circumcision 14yrs ago followed by BMG urethroplasty 5 years ago and on presentation had no voiding complaints. Examination revealed a circumcised penis with BXO changes and 1X1 cm nodular lesion on left lateral part of glans with no palpable inguinal nodes. On Routine DRE, a grade 2 prostate was found having a hard nodule on the right lobe.

Blood workup showed a PSA of 56 ng/ml. Penile biopsy suggested well differentiated squamous cell carcinoma and a sextant TRUS biopsy of prostate revealed prostatic adenocarcinoma (4+4, grade group 4) in all cores. While CT of the abdomen was unremarkable, Bone scintigraphy showed extensive skeletal metastasis.

The Patient was posted for partial glansectomy with bilateral orchiectomy and started on bicalutamide. Final HPR revealed a moderately differentiated squamous cell carcinoma without lympho-vascular invasion and free margins. Immunohistochemistry (IHC) was p63 positive suggestive of a primary squamous cell carcinoma. We concluded with a final diagnosis of Metastatic CA Prostate ($T_{2B}N_0M_1$) with CA Penis ($T_{1a}N_0M_0$).

On one year regular follow-up patient is free from primary or lymph nodal recurrence and PSA is well within castration range with resolving bony lesions.

DISCUSSION:

Multiple Primary Malignancies (MPM) was first described in 1879 by Billroth(2). The neoplasms may be limited to a single organ or may involve multiple separate anatomical organs. According to Warren Gates criteria a diagnosis of MPM require the following criteria's to be fulfilled (a) each tumour should present a definite picture of malignancy (b) each tumour should be histologically distinct (c) the possibility that one is metastasis of the other must be excluded(3). MPM has overall prevalence between 0.73% and 11.7%

In a study conducted by Chakrabarti et al.(4) it has been reported that the over a period of 2 years, 12 cases of MPM were detected against a total of 1255 cases. Of these, five cases were synchronous malignancies and seven cases were metachronous. Head and neck was the commonest site of index malignancies with seven cases followed by the breast cancer with three cases and next gynaecological malignancies with two cases. Multiple tumours that have been pathologically confirmed at the time of presentation should be evaluated and staged as independent tumours. The treatment plan should be decided after staging of both the primary and secondary tumours in view to attain maximum clinical response. Proper counselling and patient's understanding of magnitude of the disease is paramount (5). Operable synchronous SPM can be operated in a single setting with minimal morbidity with better survival and is less taxing on the patient and his/her relative both psychologically and financially. Although not unknown, multiple synchronous malignancies in urological cancers are uncommon. Koo and colleagues retrospectively analysed 582 patients of CA P and found a total of 164 patients (28.1%) had a synchronous second primary malignancy, of which colorectal (9.1%), stomach (7.3%) and lung (7.1%) cancers(6). The finding of prostate cancer after a cystoprostatectomy for a bladder tumour can occur in up to 70% of cases. The incidence of prostate cancer in patients with a bladder tumour is 18 times higher than in the general population (7). To the best of our knowledge a synchronous malignancy of CA Penis and CA prostate has not yet been reported.

In the scenario of synchronous penile and prostatic lesion, the penile lesion is usually a metastasis from prostate cancer. Even though metastatic penile tumours are comparatively rare; possible mechanism of metastasis to the penis from prostate cancer is direct invasion, implantation, and dissemination through the blood stream or through lymphatic duct. {8}

The prognosis of secondary penile malignancies is generally poor. It is reported that the average survival of such patients is approximately 9 months, with an overall survival of less than 18 months.{9} Biopsy was the mainstay of diagnosis. This allows for histological and immunological confirmation of metastatic spread, and evaluation of extent of invasion. Treatment options available include local excision of the tumour, radiation therapy, bilateral orchiectomy, additional hormonal and/or chemotherapy and, partial or total amputation of the penis with or without inguinal lymph node dissection. Treatment should be focussed on individual malignancies as per the stage and patient should be closely followed up for recurrence and metastasis.

CONCLUSION:

The occurrence of primary carcinoma penis with primary carcinoma

prostate is yet to be reported in literature. The present case report highlights the importance of a thorough clinical evaluation during the first outpatient visit. Synchronous malignancies should be considered on an individual case basis and therapeutic choice should be decided based to provide minimal possible morbidity with maximum efficacy without compromising on oncological principles. Physicians should be bear in mind the possibility of multiple primary malignancies, rather than assuming metastatic disease.

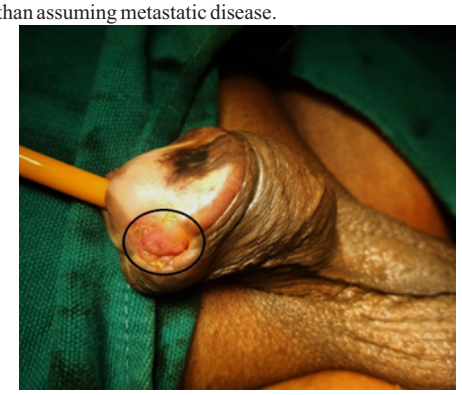
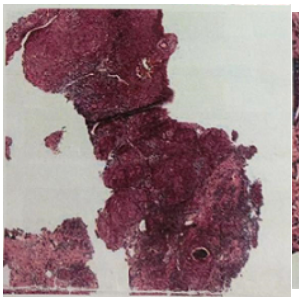
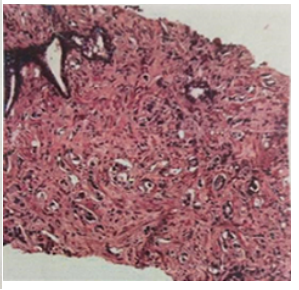


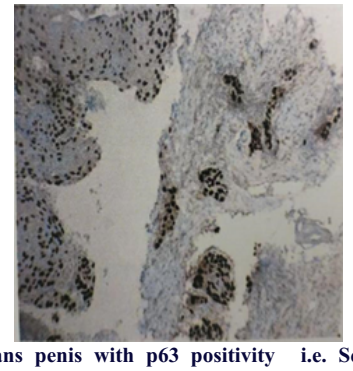
Fig 1- Clinical Image



Penile Biopsy (HPE) {Fig-2}



Prostate Biopsy (HPE){Fig-3}



IHC of Glans penis with p63 positivity i.e. Squamous cell carcinoma {Fig 4}

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