Abstract: Presenting a case, a 63 year old married male was referred to our hospital with ulceroproliferative growth in the penis and swelling in the right groin, left supra clavicular region and left shoulder. He was diagnosed as CARCINOMA PENIS WITH SECONDARIES IN INGUINAL NODE AND CERVICAL NODE after tissue biopsy of the penile growth followed by FNAC of right inguinal node and left supraclavicular node. This case is presented as a rare case of secondaries neck due to carcinoma of penis.

**Keyword**: carcinoma penis - secondaries - inguinal node - cervical node

### CARCINOMA OF PENIS

It is commonly squamous cell carcinoma but melanoma, adenocarcinoma from tyson's gland, basal cell carcinoma and secondaries may also occur.

**Etiology**:  
- chronic balanoposthitis, phimosis  
- sexually transmitted diseases  
- leukoplakia of glans  
- long standing genital warts  
- erythroplasia of querat  
- condyoma acumminata  
- HIV, HPV 16,18

**Pathology**:  
Infiltrating, pappiliferous, ulcerative.

**Clinical features**:  
Recent onset of phimosis, painless lesion to start with but later becomes painful, often accompanied by foul smelling discharge, altered urinary stream, palpable hard nodular inguinal nodes.

### STAGING

**T - Primary tumour**  
- T1 - invades subepithelial connective tissue  
- T2 - invades corpus spongiosum or cavernosum  
- T3 - invades urethra or prostate  
- T4 - invades other adjacent structures

**N - regional lymph nodes**  
- N1 - metastasis in single superficial inguinal node  
- N2 - metastasis in multiple or bilateral superficial inguinal nodes  
- N3 - metastasis in deep inguinal or pelvic nodes

**M - distant metastasis**  
- M0 - no distant metastasis  
- M1 - distant metastasis present
CASE REPORT:
Mr. Arumugam aged 63 years presented with complaints of ulcer over the penis for past 4 months which was blood stained foul smelling discharge and swelling in the right groin for 2 months. There was history of swelling in the left shoulder for past 1 month which was gradually increasing in size. There was no history of jaundice, cough, abdominal pain, fever and hemoptysis. There was history of surgery for hernia left side before 10 years and right side before 6 years. No history of extramarital sexual affairs. No history of Diabetes mellitus / Hypertension/ Coronary artery disease/ Bronchial asthma/ Pulmonary tuberculosis. On examination patient was conscious, oriented, afebrile and cachexic. Pulse rate was 88/min and BP was 122/76. Per abdomen examination was soft, no organomegaly, hernial orifices free, bilateral inguinal scar present. One hard fixed node of size 8*5cm with multiple nodes were palpable in the right inguinal region and multiple nodes palpable in the left inguinal region largest measuring 2*2cm. Local examination of genitals revealed ulceroproliferative growth of size 6*5cm involving the prepuceal skin, glans penis and shaft of penis. Shaft of penis was indurated and there was foul smelling discharge. Both testes were present and were normal. Local examination of neck revealed 4 to 5 node palpable in the left supraclavicular region and posterior triangle of neck largest one measuring 4*4cm. Local examination of left shoulder revealed nodular swelling of size 7*6 cm with hard consistency. Provisional clinical diagnosis was Carcinoma Penis with secondaries in inguinal and cervical node and was staged as stage 4 T2 N3 M1.

INVESTIGATIONS:
Hb - 9.8
sugar - 76
urea - 36
creatinine - 1.1
sodium - 138
potassium - 4.1
bloodgroup- O positive
HIV - Non reactive

LIVER FUNCTION TESTS
total bilirubin - 0.6
direct - 0.3
indirect - 0.3
SGOT - 39
SGPT - 34
ALP - 114
Total protein - 7.4
albumin - 4.4
globulin - 3.0
SERUM CALCIUM - 11.7

TISSUE DIAGNOSIS
1. Biopsy from Penis - SQUAMOUS CELL CARCINOMA
2. FNAC Right inguinal node - METASTATIC SQUAMOUS CELL CARCINOMATOUS DEPOSITS
3. FNAC Left supraclavicular - METASTATIC SQUAMOUS CELL CARCINOMATOUS DEPOSITS

RADIOLOGICAL INVESTIGATION
1. Chest X Ray PA - normal study
2. X Ray Left shoulder - soft tissue swelling
3. X ray neck AP and LATERAL - normal study
4. X ray abdomen erect - normal study
5. USG abdomen - normal study
6. USG neck - cervical lymphadenopathy posterior triangle of left side of neck thyroid normal
7. CT Chest - normal study
8. CT abdomen - normal study
9. CT neck - multiple enlarged cervical lymph nodes left side of neck
10. CT Brain - normal study
11. Barium swallow - normal study

PAN ENDOSCOPY
1. Bronchoscopy - normal study
2. Upper GI scopy - normal study
3. Indirect larynoscopy - normal study

CONSULTATIONS
1. Urology - nil intervention
2. ENT - Indirect Laryngoscopy was normal. Suggested barium series. Barium series was also normal. Then suggested nil intervention.
3. Oncologist - suggested to improve general condition. Then for palliative chemotherapy with 5 FU and CISPLATIN

DISCUSSION:
Pathways of nodal spread:
Penile cancers commonly metastasise to lymph nodes along the superficial inguinal pathway. The saphenofemoral junction node in the sentinel node for this group of cancers. From there, metastatic tumour cells may ascend toward the deep inguinal nodes. Metastasis to external iliac nodes also may occur via a secondary pathway. However direct (so called skip) metastasis to this nodal area are rare. Nodal dissemination of penile cancers are frequently bilateral because of complex lymphatic network and lateral cross over of lymphatic ducts at the base of the penis. In patients with penile cancer, metastasis to superficial inguinal, deep inguinal, internal iliac or external iliac (including obturator node) nodes are categorised as N lesions (regional nodal metastasis). Whereas metastasis to common iliac nodes are categorised as M1 lesions (non regional nodal metastasis). The risk for metastasis among patients exhibiting corporeal invasion was similar irrespective of whether palpable adenopathy was present. The presence of vascular invasion as a prognostic indicator of inguinal node metastasis in squamous penile cancer is now evident. Modified post therapeutic pathways: Knowledge about any previous treatment of primary tumour is important because surgery, chemotherapy and radiotherapy can modify the pattern of nodal disease. Nodal dissemination follows a different pathway when normal lymphatic drainage has been disrupted by nodal dissection or therapeutic irradiation. Dresslers quadrangle: upper border is formed by line joining anterior superior iliac spine and pubic tubercle; laterally line joining anterosuperior iliac spine and a point 20 cm below it; medially pubic tubercle and a point 15 cm below it. Nodal block dissection for carcinoma penis should cover this area adequately. Hypercalcemia without detectable osseous metastasis has been associated with penile cancers. Hypercalcemia seems to be largely a function of the bulk of the disease. It is often associated with inguinal metastasis and may resolve after excision of involved nodes. PTH and related substances may be produced by both tumour and metastasis that activate osteoclastic bone resorption. Medical management of hypercalcemia includes aggressive saline hydration to restore the extracellular fluid volume and to promote both sodium and calcium excretion. The administration of diuretics is performed if volume overload is suspected. Bisphosphonates have become first line therapy because they possess demonstrated efficacy as anti resorptive agents. For severe hypercalcemia associated neurologic manifestations, the antiresorptive bisphosphonates can be combined with an agent that lowers calcium level such as calcitonin.

Conclusion:
The histopathology of left cervical node, left shoulder swelling showed morphology similar to that of right inguinal node, thus concluding that cervical node metastasis from carcinoma of penis. The possibility of dual malignancy (head and neck malignancy) was ruled out after doing CT chest, CT neck and Pan endoscopy. Thus presenting this case for its rarity (probably the first case to report) - CARCINOMA PENIS WITH SECONDARIES IN INGUINAL NODE AND CERVICAL NODE.

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