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Case Report
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PENILE SQUAMOUS CELL CARCINOMA, CASE REPORT AND REVIEW OF LITERATURES

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Background

Penile tumors represent a difficult diagnostic and therapeutic issue to solve, mainly because of their psychological implications. The diagnosis may be delayed because many patients tend to disregard early asymptomatic lesions. Circumcision soon after birth confers almost complete immunity against carcinoma of the penis. Later circumcision does not seem to have the same effect, and Moslems circumcised between the ages of 4 and 9 years are still liable to the disease[1].

Case presentation

A 55 years old male patient presented with painful penile lesions since 6 months, associated with painful micturition and several attacks of retention of urine. He received irregular courses of different types of medical treatment without any improvement. On examination, there were two big ulcers, one anteriorly (2x3cm) and the other one (1x2cm) was laterally placed on the glans of the penis; both were irregular in shape with everted edges. The base was tender and indurated while the floor was covered by blood stained and seropurulant discharge. The bigger ulcer was reaching the urethra and invading it (Fig.1-3). Left inguinal lymph node group were enlarged, matted together and tender. Blood investigation was normal including VDRL. Ultrasound of the abdomen was normal. FNAC of the left inguinal L.N. revealed numerous acute inflammatory cells. Incisional biopsy was taken from both ulcers and the patient was kept on antibiotics until the result of the specimen revealed feature of poorly differentiated sequamus cell carcinoma of the penis. The L.N. enlargement slightly improved on antibiotics. Because of unavailability of radiotherapy center in our governate and because of poor financial state of the patient together with the security difficulties for the patient to go to Baghdad, a decision for partial amputation of the penis was taken together with inguinal L.N. dissection. The patient run uneventful course postoperatively. Histopathology of the L.N. specimen revealed metastatic spread. The patient received chemo-therapy after surgery.

Discussion

The causes of penile SCC is unclear, factors considered to play a role in the development of the disease include:
1**.** HPV infections**:** A role of HPV infections is established but not fully understood. Genital HPV infections mostly affect middle-aged, sexually active individuals[2].
2. In situ carcinomas: If untreated, in situ carcinomas likely evolve to invasive carcinomas. They include Bowen

disease, erythroplasia of Queyrat, and bowen oidpapulosis[3,4].
3. Leukoplakia, Penile lichen sclerosus, Pseudoepitheliomatous, keratotic, micaceous balanitis and Penile horn
4. Factors resulting from the lack of circumcision: Epidemiologic data have demonstrated that penile SCC is exceedingly rare in men who are circumcised at birth. The prophylactic effect of circumcision on penile carcinoma is likely related to the lack of retained smegma that has been proven to be carcinogenic in animals. One study also demonstrated an increased risk of HPV infection in uncircumcised men (19.6%) compared with circumcised men (5.5%)[5]. Poor genital hygiene in uncircumcised males, even in the absence of phimosis, may also play a role, leading to the retention of smegma[3].
5. Other factors: Occasional factors that have been reported in association with penile SCC include:

- Prolonged exposure to different chemical compounds (e.g. insecticides, fertilizers)[6].
- Late ritual circumcision followed by herbal treatments to control bleeding is associated with extensive scarring and may result in the development of invasive tumors[7].
- Cigarette smoking, which has been found to show a clear-cut association with penile SCC related to the nicotine intake and independent of phimosis or balanitis[6].
- UV radiation that may enhance the development of penile SCC[8].
- Reconstructive surgery for sex reversal[9].

Frequency: The incidence ranging from 1% in the Western countries to 10-20% in some parts of Asia, Africa, and South America[10]. It is rare among some religious communities who practice circumcision, such as Jewish and Moslem groups[3] .The age at onset is 20-90 years, with a peak around the sixth and seventh decades[11].

History: In most cases, the earliest symptoms are itching or a burning sensation under the foreskin, and ulceration of the glans or the prepuce. With time, the tumor destroys the glans and the prepuce and infiltrates the corpora cavernosa[12]. It most often occurs on the glans (48%), prepuce (21%), both (9%), the coronal sulcus (6%), and the shaft (<2%)[10]. Lymphatic metastases first occur in the superficial or deep inguinal lymph nodes, then in the regional lymphatic of the pelvis. Distant metastases resulting from vascular dissemination (most commonly to the lungs and the liver) are rare and usually late[13]. Imaging techniques recommended for a more accurate staging include ultrasonography, CT scanning, and MRI[14] .Initial biopsy of the primary penile lesion is necessary to confirm the diagnosis and to assess the grade and the invasiveness of the tumor[3]. The staging systems currently used are the Jackson classification and the (TNM) system.

Medical Care: The treatment of penile SCC varies according to the clinical stage. it includes radiation therapy, medical therapy, and surgery , alone or incombination[15] .
1. Radiation therapy:
Radiation therapy with external beams or mould techniques may be an option to treat small, superficial, exophytic lesions in young individuals, allowing for the preservation of sexual function with a high cure rate. In case of relapse, salvage surgery may be required. Circumcision before therapy is recommended. Major complications, such as urethral stenosis, fistulas, and penile necrosis, may occur[16]. 2. Medical treatment: local and systemic chemotherapy. Early premalignant and in situ changes can be treated with topical chemotherapy (5-

FU)[17]. Systemic chemotherapy may be used according to the stage of the disease[(3)]. 3. Surgical Care: Surgical procedures consist of local excision, circumcision, glansectomy, partial penectomy, total penectomy, and demasculinization. Whereas partial penectomy is the procedure of choice for tumors at a low stage (stage I, T1-T2) that involves most of the glans or the distal third of the penis. Total penectomy is necessary when the lesion is in the proximal portion of the penis or when the tumor is at an advanced stage (stages II-III,T3-T4)[18].

Lymph node dissection: Because of the significant morbidity of inguinal and pelvic node dissection and because of the high incidence of reactive nodes, surgical dissection of the lymph nodes is necessary only if they are enlarged and do not regress after adequate antibiotic therapy[18] .

Prevention: Circumcision in infancy and a good standard of sexual hygiene are recognized as good prophylactic measures.

Prognosis: In the absence of inguinal metastases, patients with invasive SCC of the penis involving the glans or the distal part of the shaft who undergo adequate partial amputation have a long-term survival rate of 70-80%. Of patients with involved lymph nodes, 40-50% can be cured with lymph node dissection, whereas untreated patients usually die within 2-3 years[18].

Fig.1

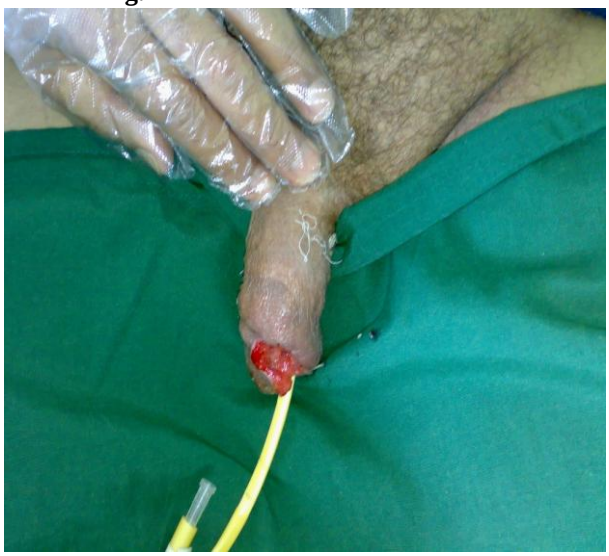
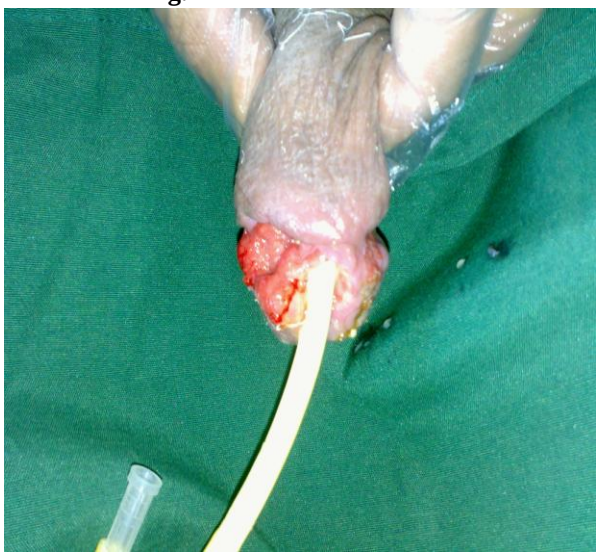


Fig.2



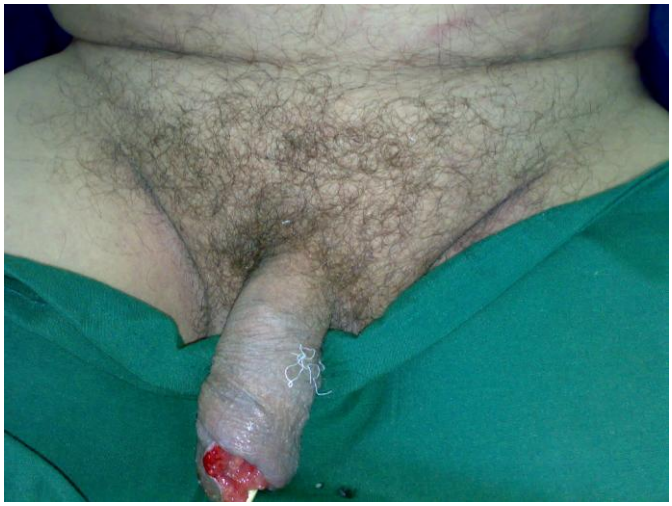


Fig.3

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