

REVIEWS

Penile Neoplasia Forensic Approach

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Abstract

Penile conditions represent a relatively rare but „delicate” pathology. Unfortunately penile neoplasia often involve both physically and mentally mutilating surgery. Penile cancer (PC) represent an uncommon pathology which if remains untreated has a bleak outcome. It benefits from different therapeutic approaches starting from topical treatment and ending with surgery. Entirely removal of the disease is the aim of the treatment with maximal functional preservation. Given the mutilating therapy it is mandatory that the patient is well informed of all possible functional outcomes in order to avoid the forensic aspects. We favor the individualisation of the therapeutic approach in order to maintain at least a decent functionality. Unfortunately usually the neoplasia is in an advanced stage at the time of presentation to the physician so the oncological aspects become priority.

Keywords: penile cancer, forensic, oncological surgery

Rezumat

Bolile aparatului genital masculin reprezintă o patologie rară dar „delicată”. Din păcate neoplaziile peniene implică mutilarea fizică, dar mai ales psihică a pacientului. Cancerul penian este o boală rară care netratată are un prognostic foarte prost. Beneficiază de multiple abordări terapeutice începând cu tratamente topice și terminând cu abordul chirurgical extensiv. Excizia cu viză radicală dublată de menținerea unei funcționalități maxime este scopul tratamentului. Ținând cont de aspectele mutilante ale chirurgiei este foarte important ca pacientul să fie bine informat pre-operator pentru a evita orice formă de litigiu. Chiar dacă există ghiduri standard, anumite aspecte ale terapiei pot fi individualizate pentru a obține o funcționalitate cât mai bună. Din păcate, de cele mai multe ori boala este într-un stadiu avansat și aspectul oncologic primează, cel funcțional și estetic, mai ales, trecând pe plan secundar.

Cuvinte cheie: cancer penian, medico-legal, chirurgie oncologică

Penile cancer is a relatively rare neoplasia with the overall incidence of less than 1 from 100000 patients in Europe and USA^{1,2}. The majority of them are common scumous cell carcinoma 48-65% of the cases followed by basaloid carcinoma, warty carcinoma, verrucous carcinoma, papillary carcinoma which cover for more than 30% with the rest of 5% going to rare types of neoplasia or mixed types.

As in cervix carcinoma the role of HPV has been proved, infact there is a rare type of PC which is di-

rectly linked to HPV³. As such, the prevalence of penile neoplasia is related to that of HPV in general population. Strains 16 and 18 are the most common findings in penile carcinoma⁴.

The incidence of penile cancer increases with age⁵. The peak age is during the sixth decade of life, though the disease does occur in younger men⁶.

There are different clinical forms, premalignant lesions and borderline tumors, all of them with various treatment and outcome.

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Diagnosis is based on clinical examination but nevertheless the histopathological result remains the cornerstone of diagnosis. Immunohistochemistry adds more weight and specificity to it.

As such penile biopsy is mandatory even if the macroscopic appearance is clearly neoplastic. If the results come back negative the surgeon should take another biopsy and not initiate any form of treatment.

Frozen sections are advisable to prove negative margins. A 5 mm cancer free margin is considered oncological⁷.

The absence or presence of lymphovascular invasion, tumor grading and extracapsular spread in any inguinal node are the most important factors to influence the outcome of the disease.

Treatment methods vary from organ preserving to ablative measures. The biggest problem in this case is that there are no credible studies to mark a difference

between the outcome of these two methods so this leaves open a very large door for any forensic aspect.

Treatment starts from topical therapy with imiquimod and 5-fluorouracil, laser therapy (CO₂ or neodymium: yttrium-aluminum garnet - Nd:YAG), Moh's micrographic surgery, glans resurfacing, glansectomy, partial penectomy and ends with total penectomy with perineal urethrostomy. Radiotherapy and chemotherapy are used as adjuvants or in the case of radiotherapy it can be used as standalone treatment.

I do not think it is hard to imagine why a patient tends to choose one of the first possibilities and avoids the latter.

On the other hand there are many cases that address the dermatologist and a few the general surgeon. From any surgical point of view this matter does not lie in their hands, accepting the general idea that topical and minimally invasive surgery can be addressed to the dermatologist. From the general surgeon's point of view this is an unnecessary risk to be taken nowadays.

More to say in this cases the patient usually prefers to address the dermatologist in search of topic or minimally invasive surgery in order to avoid any ablative, mutilating treatment even though the disease is past these procedures.

Another important and usually overmissed aspect is the informed consent. This actual piece of paper does not suffice it is very important that the urologist explains everything to the patient and that includes the actual intervention, intraoperative and postoperative risks⁸.

For the less mutilating procedures the litigation is less to appear but for glansectomy and so on things tend to get worse. Unfortunately there are not many studies but those we found report in cases of glansectomy that 79% maintained erection and 75% reported orgasm⁹. Partial penectomy seems to get rather bad results reporting approximately 55% erectile function, with 50% of those who did not feeling ashamed and one third blaming the surgical procedure. Overall, only



Figure 1. Suspect lesion post - circumcision - biopsy result: angioma.



Figure 2. More than clear neoplastic lesion: biopsy proved moderate differentiated squamous cell carcinoma.

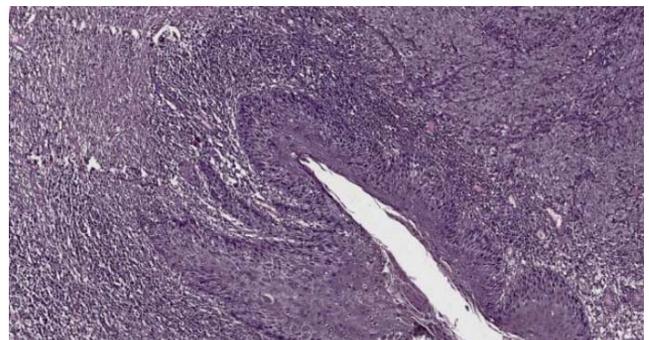


Figure 3. Detail of neoplastic tissue with normal adjacent epidermis.

33.3% maintained their pre-operative frequency of sexual intercourse^{10,11}.

When using laser therapy one should be very careful because vaporising the tissue means there is no surgical margins and no bioptic tissue which represents another risk of litigation.

There are few papers in the literature to address forensic matters of this type and most of them from Western Europe. One of the most comprehensive belongs to Osman et al who analyzed 14 years of successful urological litigations in the UK national health system. Besides other procedures and anatomical zones in the pelvic area vasectomy and reconstructive surgery

seems to hold the first lines¹². Although the numbers look small it is merely an illusion given the fact that the overall number of reconstructive procedures does not exceed fifteen.

On the other hand the medical expert is also prone to misjudgement, so in other countries there are taken steps to regulate their work by an Expert Panel¹³.

Either way the permanent conflict that arises is between the oncological aim of the treatment and the functional result, which in our case should not come first but sometimes it does. Fortunately this type of litigation is quite rare given the rarity of the neoplasia.

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