

Title: Quality of life issues after treatment of penile cancer

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**Introduction**

Carcinoma of the penis is a rare tumor in the western World. The incidence in non-Western countries is higher, with a variety of 0,58/100.000 (Barnholtz-Sloan, 2007) in industrialized countries and 10-20/100.000 in some parts of Asia, Africa and South America (Misra et al),

In the Netherlands 110 new cases of penile cancer are diagnosed every year, with a 5 year survival of 70-80% (Dutch cancer registry 2008). At The Netherlands Cancer Institute-Antoni van Leeuwenhoek Hospital, 70 patients a year receive treatment and is thus the most important centre for this tumor in the Netherlands. (Tumor registry 2006). Penile cancer is mainly a tumor of the elderly man (>60 year) but is also seen in younger man.

Risk factors for the development of penile cancer are: existence of pre-malignant skin lesions of the penis: carcinoma in situ (Bowens disease), Balanitis Xerotica et Obliterans

(BXO or Lichen Sclerosus et Atrophicans, LSA), human papillomavirus (HPV 16/18) infection, phimosis, and smoking

Standard treatment depends on the size of the tumor, presence of lymph node metastases. Primary treatment option is penile preserving surgery or a form of partial or total penile amputation.

Treatment of lymph node metastases consists of a lymph node dissection. To prevent unnecessary dissections a sentinel node procedure is performed. In case of metastatic disease chemotherapy, a combination of cisplatin and 5-Fluorouracil and docetaxel is mostly used in an adjuvant or neo-adjuvant setting (Pizzocaro 2008).

Last decades the treatment aim is to be as much penis preserving as possible with safe oncological margins. To maintain the functions of the penis concerning urination and sexuality.

Romero (2005) found that only 33% returned to sexual intercourse after treatment, caused by the sense of shame, a smaller penis or absence of the glans of the penis. Ficarra (2000) reported a higher incidence of anxiety and depression level in penile cancer patients compared with a control group.

Although it is generally possible to spare the penis and to preserve its function totally or partly, there is minimal knowledge about the impact on the quality of life for patients with the different surgical treatments.

Few studies showed evidence that surgery for penile cancer had influence on the function of the penis (sexuality and urinate) and masculinity (Bullen 2009). Laser therapy with recovery of function gave a decrease of sexual activity but had no influence on the general quality of life (Skeppner 2008).

Until now very few studies have assessed the relation between the quality of life and penile cancer.

A recently published systematic review of all available literature from 1985-2008 showed a decrease of quality of life until 50% and decrease in sexual function of 60% (Madineni 2009).

## **Overall goal, specific objectives**

With this research project we analyse the influence of:

- The different treatment options, with/without lymph node dissection and the quality of life,
- The different treatment options on the function of the penis concerning urination and sexuality,
- The different treatment options on the feeling of masculinity.

## **Methodology**

A cross sectional study in 270 men treated at the NKI-AVL from 2003-2008 for penile cancer, assessing the influence of penile cancer, treatment modalities, impact on penile function, like sexuality and masculinity... .

Instruments: four different questionnaires. First, the SF 36 general quality of life questionnaire, (this can be matched with a sample taken at random of the general Dutch population). Second, the Impact of Cancer questionnaire (IOC V02) focused on survivorship, third the International Index of Erectile Function (IEFF15) and fourth, five questions about urination.

## **Inclusion criteria**

Men who have had surgical treatment for penile cancer with or without lymph node dissection in the period 2003-2008.

## **Exclusion criteria**

- metastatic disease
- Palliative treatment
- Chemotherapy treatment
- Recurrent disease
- Second malignancy

### **Relevance urology nursing**

Although a rare tumor, the consequences of penile cancer treatment can be dramatic. There is a clear lack of knowledge on the impact on quality of life. Without this knowledge nursing support and interventions is supportive only at best.

### **Time table**

May 2010 - October 2010

### **Budget**

Budget is required for data management and to accomplish the whole investigation.

### **References**

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**Possible conflicts of interest**

No