

## Quality of life evaluation in patients with cancer of the penis that underwent partial phallectomy

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### Abstract

**Background:** Cancer of the penis accounts for less than 1% of all cancers affecting males. Nevertheless, it has a huge impact on the patients that present with it. **Objective:** To report on the quality of life, erectile function, and perception of self-esteem in patients that underwent partial phallectomy due to cancer of the penis.

**Materials and methods:** An analytic, cross-sectional study was conducted that included 10 postoperative partial phallectomy patients. They were evaluated through the EORTC-QLQ-30 questionnaire (validated for the Mexican population), the International Index of Erectile Function-Short Form (IIEF-5), and the Rosenberg Self-Esteem Scale (SES).

**Results:** The quality of life results, evaluated through the EORTC-QLQ-30 questionnaire, were lower than those for the general population in all 10 patients. In the IIEF-5 sexual activity evaluations, 5 of the 10 patients were sexually inactive, one patient had no deterioration of sexual activity, one patient had mild deterioration, and 3 patients had mild-to-moderate deterioration. Self-esteem, evaluated by the SES, was above average in 8 of the 10 patients, average in one patient, and below average in one patient.

**Conclusions:** The results of the present study, determined through different scales, indicated that partial phallectomy as treatment for cancer of the penis affected patient quality of life and had repercussions on sexual function. Nevertheless, the self-esteem of the patients, despite their condition, was not affected and was even above average.

**Keywords:** Quality of Life, Sexual activity, Self-esteem, Cancer of the penis, Partial phallectomy.

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**Reference:** Haddad-Servín A., Sánchez-Aquino U., Véliz-Cabrera G., Viana-Álvarez G., López-Maguey R. Calvo-Vázquez I., et al., Quality of life evaluation in patients with cancer of the penis that underwent partial phallectomy. *Rev. Mex. Urol.* 2019;79(1):pp 1-6

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**Received:** October 1, 2018

**Accepted:** December 20, 2018



## Introduction

According to the National Comprehensive Cancer Network (NCCN), cancer of the penis accounts for less than 1% of all cancers that affect males, representing 0.91 patients per 100,000 inhabitants.<sup>(1)</sup>

In general, treatment includes surgery, which has a great impact on the patient, given that part of the penis is removed, affecting quality of life and daily functions.<sup>(2)</sup> The quality of life of patients treated for cancer of the penis is not always mentioned in the medical literature, given that treatment success is gauged by disease cure. However, quality of life is a very important theme encompassing the years after management. Therefore, the aim of the present study was to report the findings with respect to quality of life in patients with cancer of the penis that underwent partial phallectomy.

## Materials and methods

An analytical cross-sectional study was conducted postoperatively on 10 patients that underwent partial phallectomy within the time frame of 2005 to 2018 at the Urology Service of the *Hospital General Dr. Manuel Gea González* in Mexico City.<sup>(3)</sup>

In July 2018, 32 patients were called by telephone and 10 responded. The purpose of the calls was to directly apply 3 questionnaires to the patients to evaluate their quality of life.

The following evaluation instruments were used:

- For quality of life, the EORTC-QLQ-30 V3.0 questionnaire (validated for the Mexican population).<sup>(4)</sup> It consists of 30 questions with results ranging from 30 to 126 points,

in which a higher score represents a better quality of life.

- For sexual activity, the International Index of Erectile Function-Short Form (IIEF-5).<sup>(5)</sup> It consists of 5 questions with results ranging from 5 to 25 points, in which the grade of erectile dysfunction is considered severe with a score under 7 points, moderate with 8 to 11 points, mild-to-moderate with 12 to 16 points, mild with 17 to 21 points, and normal with 22 points or more.
- For self-esteem, the Rosenberg Self-Esteem Scale (SES).<sup>(6)</sup> It consists of 10 questions with results ranging from 10 to 40 points, in which the grade of self-esteem was low with 25 points or fewer, normal with 26 to 29 points, and high with 30 points or more.
- The Mann-Whitney U test was used to compare the results, through the IBM Statistics 24 SPSS system and Microsoft Office Excel. Statistical significance was set at a  $p < 0.05$ .

## Results

The information from the 10 patients that responded to the questionnaires by telephone was analyzed and compared with that of the general population.

With respect to quality of life, the mean score was 54.5 points. The mean score for sexual activity was 8.8 points (5 of the patients were sexually inactive, 1 patient had no deterioration in erectile function, 1 patient had mild deterioration, and 3 patients had mild-to-moderate deterioration). Regarding self-esteem, the mean score was 28.4 points. The self-esteem of 8 of the 10 patients was above average, it was average in 1 patient, and below average in 1 patient. Table 1 shows the demographic results of the patients and the results of the questionnaires.

**Table 1: Results**

<i>Age at Dx</i>	<i>Age at diagnosis</i>	<i>Medical history</i>	<i>Histologic report</i>	<i>TNM/G</i>	<i>EORTC-QLQ30</i>	<i>IIEF-5</i>	<i>Interpretation</i>	<i>SES</i>	<i>Interpretation</i>
74 (2005)	74 (2005)	Bilateral lymph nodes smaller than 4cm	Moderately differentiated squamous cell carcinoma	T3N0M0/G2	54	15	Mild-to-moderate	30	Above average
49 (2010)	49 (2010)	Phimosis, Balanitis xerotica obliterans	Well differentiated squamous cell carcinoma in situ	T1AN0M0/G1	54	23	No dysfunction	30	Above average
55 (2013)	55 (2013)	Phimosis, Verrucous lesion, Bilateral lymph nodes smaller than 4cm	Moderately differentiated squamous cell carcinoma	T1AN0M0/G2	45	20	Mild	30	Above average
55 (2013)	55 (2013)	No	Well differentiated squamous cell carcinoma	T1AN1M0/G1	48	16	Mild-to-moderate	25	Average
63 (2015)	63 (2015)	Right-side lymph nodes larger than 4cm	Poorly differentiated squamous cell carcinoma	T2N1M0/G3	64	0	Not applicable	24	Above average
72 (2016)	72 (2016)	Condylomata due to HPV	Well differentiated squamous cell carcinoma	T1AN0M0/G1	49	14	Mild-to-moderate	34	Above average
47 (2016)	47 (2016)	Bilateral lymph nodes smaller than 4cm	Moderately differentiated squamous cell carcinoma	T3N1M0/G2	70	0	Not applicable	28	Above average
65 (2017)	65 (2017)	Left-side lymph nodes smaller than 4cm	Well differentiated squamous cell carcinoma	T3N1M0/G1	52	0	Not applicable	26	Above average
70 (2017)	70 (2017)	Right-side lymph nodes smaller than 4cm	Moderately differentiated squamous cell carcinoma	T3N1M0/G2	41	0	Not applicable	37	Above average
84 (2018)	84 (2018)	Bilateral lymph nodes smaller than 4 cm	Moderately differentiated squamous cell carcinoma	T1BN0M0/G2	68	0	Not applicable	20	Below average

Source: formulated from the results of the questionnaires applied to the study patients by telephone.

## Discussion

Even though disease cure is the goal of treatment with partial phallectomy, the fact that the patient will present with sexual dysfunction, altered physical appearance, and shame, among other aspects, resulting in a poor quality of life, is often ignored.<sup>(7-8)</sup>

Our results were comparable with those of other analyses, especially the study by Maddineni *et al.*,<sup>(9)</sup> in which treatment was reported to negatively impact 40% of the patients. However, it should be mentioned that of the scales utilized in our study, the only one validated for the Mexican population was the EORTC-QLQ-30. The other instruments, albeit valuable evaluation tools, can be used for different types of cancer or for other pathologies, but they were not developed specifically for patients treated for cancer of the penis.

With respect to sexual function, the mean age of the patients was 63.4 years. Thus, it is pertinent to ask if the absence of sexual activity was due to the disease itself, as shown in previous analyses, such as the study by Opjordsmoean *et al.*,<sup>(10)</sup> or due to external factors such as age, associated metabolic alterations, or marital problems.

It is important to state that despite the fact that part of the penis was removed, some patients utilized alternate areas to achieve orgasm (as the maximum event of sexual pleasure), such as the mons pubis, the scrotum, and the nipples, and their stimulation was considered the equivalent of sexual activity.

Another point to consider is that, contrary to what is commonly thought, the majority of the patients forged stronger bonds with their family and/or partner after diagnosis, which was of great help in facing the disease. Thus,

we determined that sexual function is not the only important element of good quality of life. In addition, most of the patients stopped giving importance to certain aspects of daily life, and instead, were thankful to simply be alive and disease-free, which explains the low EORTC-QLQ-30 score and the high SES.

The concept of “masculinity” and “manhood” is a social construct of norms and behaviors exhibited by the male gender. Those norms and behaviors are influenced by different personal, social, and cultural factors, and they must be performed for the man to feel good about and satisfied with himself and his gender.<sup>(11)</sup>

Disease *per se* can reduce the capacity of the male individual to carry out daily activities. However, disease has an even greater negative impact when it involves the penis, the organ that categorizes the individual as a man. But contrary to what might be thought, despite the deterioration of sexual function, self-esteem can be above average. Such a situation can occur because when a person is in a life-threatening position, social concepts take on a secondary importance, and gratitude for being alive is what prevails. This was seen in the present study, and similar results were reported by Kieffer *et al.*,<sup>(12)</sup> who found that positive results with respect to being alive had the same effect as having a good relationship, given that it reduced anxiety and promoted support, reestablishing the masculine role.

The cutoff point for the evaluations was in 2018. Diagnosis was made at a different time, and thus, the period of time of adaptation of the patients was not taken into consideration. Nevertheless, due to the similarity of the results of the patients, it can be assumed that they were interviewed not very long after treatment.

Finally, it is important to comment that the low number of patients in the present study is related to the nature of the disease. However, our results were similar to those of other studies in the literature. In addition, the scales utilized, and their analyses, made it possible to reach important conclusions regarding quality of life. Furthermore, the possibility of conducting larger evaluations in the future remains open.

## Conclusion

In the present study, patients that only underwent partial phallectomy, with or without added treatments, were objectively evaluated through different scales.

It can be concluded that quality of life was affected in those patients, with repercussions associated with sexual function, but self-esteem was not affected. In fact, it was above average, compared with the general population.

Further research is needed to determine complete strategies for those patients to follow, understanding that they need the help of other specialties, including those outside of the field of medicine, to have the comprehensive management that will enable them to live their daily lives in the best manner possible.

## Conflict of interest

The authors declare that there is no conflict of interest.

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