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Quality of life and self-esteem in patients submitted to surgical treatment of skin carcinomas: long-term results[*]

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Abstract: BACKGROUND: Cancer is a multifactorial disease and skin carcinomas are the most common type of cancer. Assessing quality of life and self-esteem outcomes in skin cancer patients is important because these are indicators of the results of the treatment, translating how patients face their lives and their personal relationships.
OBJECTIVE: To assess the late impact of the surgical treatment of head and/or neck skin carcinomas on quality of life and self-esteem of the patients.
METHODS: Fifty patients with head or neck skin carcinomas were enrolled. Their age ranged between 30 and 75 years, 27 were men and 23 were women. Patients were assessed with regard to quality of life and self-esteem, preoperatively and five years postoperatively. Validated instruments were used: the MOS 36-item Short-form Health Survey (SF-36) and the Rosenberg Self-esteem/EPM-UNIFESP Scale. The Wilcoxon signed-rank test was used for the statistical analysis.
RESULTS: Twenty-two patients completed the five-year follow-up, 54.5% women and 45.5% men. Compared to the preoperative assessment, patients had an improvement in mental health (p=0.011) and in self-esteem (p=0.002). There was no statistical difference with regard to the other domains of the SF-36.
CONCLUSION: Patients submitted to surgical treatment of skin carcinoma improved mental health and self-esteem in the late postsurgical testing.
Keywords: Quality of life; Self concept; Skin neoplasms

INTRODUCTION

Cancer is a multifactorial disease, resulting primarily from genetic and environmental factors, as well as lifestyle.[1] Among the malignant neoplasms affecting people, the most common is nonmelanoma skin cancer. Head and neck are the sites most frequently involved: 90% among men and 85% among women. The incidence of nonmelanoma skin cancer has increased over the past three decades. It is the most frequent type of cancer in Brazil, affecting about 0.06% of the population.[2-5]

Malignant skin neoplasms can be basically divided into two groups: melanoma and nonmelanoma. The latter consists mainly of basal cell carcinomas and squamous cell carcinomas. Basal cell carcinoma usually tends to growth slowly and metastases are very uncommon. Squamous cell carcinoma is often more aggressive than basal cell carcinoma, with higher chance of metastases.[6]

In Brazil, skin carcinoma is the most frequent type of cancer in men in the South, Midwest and North regions, and the second most common type of cancer in the Southeast and Northeast regions. Among women, skin carcinoma is the most frequent type of cancer in all regions. In 2012, it was estimated that there were 62,680 new cases of nonmelanoma skin cancer among men and 71,490 new cases among women in Brazil. These figures represented an estimated risk of 65 new cases per 100,000 men and 71 new cases per 100,000 women.[7]

The World Health Organization (WHO) defines quality of life as "individuals' perception on their position in life in the context of the culture and value system in which they live and in relation to their goals, expectations, standards and concerns." Therefore, the concept of quality of life concerns not only the biomedical model, but also aspects related to health promotion, disease prevention, treatment and

rehabilitation in order to improve the patients' well-being.[8]

The term "quality of life" consists of a multidimensional (physical, psychological, social, and spiritual), subjective, dynamic, and bipolar concept. Currently, quality of life measures are essential to evaluate the results of cancer treatment.[9]

Self-esteem consists of a person's positive feelings about oneself. It is the core of people's subjective lives because it determines the way they think and behave. Thus, the analysis and measurement of self-esteem is based on individuals' social experiences.[10]

Having cancer nowadays does not necessarily mean that the patient is going to die because cure rates are increasingly rising. Thus, the concept of cure should not be solely based on the biological recovery, including also the patient's welfare, psychic survival, and quality of life.[11-13] Therefore, the goal of the treatment of patients with skin cancer should include improvement in their quality of life and self-esteem. The objective of the present study was to evaluate the late impact of surgical treatment of skin carcinomas on patients' quality of life and self-esteem.

PATIENTS AND METHODS

The present study was approved by the Research Ethics Committee of Universidade do Vale do Sapucaí. All patients signed an informed consent form. This was a prospective, analytical, clinical study.

Fifty patients with head and neck skin carcinomas (biopsy-confirmed diagnosis), aged between 30 and 75 years were included, with no exclusion criteria regarding gender, ethnicity, educational level, and socioeconomic status. Patients with skin lesions smaller than 1 cm at their largest diameter, those who received a biopsy-based diagnosis other than skin carcinoma, and patients with concomitant presence of another type of neoplasia or metastases were excluded from the study.

During clinical diagnosis, patients' quality of life and self-esteem were also assessed (preoperative evaluation). All patients underwent surgical treatment at the teaching hospital of Univás in 2006. The surgeries were conducted in a surgical unit, under general or local anesthesia, and consisted of excision followed by primary closure, skin graft and/or local flaps, depending on the indication for each case.

After a five-year period, patients were reassessed at the time of their outpatient follow-up visit. Patients who did not return to the outpatient clinic were contacted at their homes. Twenty-two patients were reassessed. One patient refused to continue participating in the study; three patients had died, and 24 patients could not be reached.

Quality of life was assessed using the Brazilian version of the Medical Outcomes Study 36-Item Short-Form Health Survey (SF-36). Self-esteem was evaluated using a specific instrument, the Rosenberg Self-Esteem Scale/UNIFESP-EPM.[14,15] Both instruments are validated for use in Brazil.

The SF-36 consists of 36 items covering eight domains: physical functioning, physical role functioning, bodily pain, general health perceptions, vitality, social role functioning, emotional role functioning, and mental health. Each area is analyzed separately, and the scores range from 0 to 100, where 0 represents the worst possible health state and 100 represents the best possible health state.[14]

The Rosenberg Self-Esteem Scale/UNIFESP-EPM provides a single score, ranging from 0 to 30, and the higher the score the lower the individual's self-esteem.[15]

Statistical method:

Sociodemographic and clinical data were expressed as median and interquartile range. We used the Mann-Whitney test for numerical variables and the chi-square or Fisher's exact test for categorical variables in order to compare the patient group that completed the 5-year follow-up with the patient group that did not complete the follow-up in terms of demographic and clinical variables.

The comparison between the scores on the SF-36 and the Rosenberg Self-Esteem Scale/UNIFESP-EPM at the preoperative period and late postoperative period was conducted using the Wilcoxon test. The test was performed separately for each domain of the SF-36 and the Rosenberg Self-Esteem Scale/UNIFESP-EPM.

We used the SPSS (Statistical Package for Social Sciences, Inc., Chicago, USA) version 18 to perform the statistical analysis, considering a significance level of 5%.

RESULTS

The patients' age ranged between 41 and 75 years old. Their median age was 60.5 years old and the interquartile range was 22 years. All patients were Caucasian, and their skin types were as follows according to the Fitzpatrick classification: I (4%), II (64%), III (22%), or IV (10%).[16] The most prevalent type of tumor was basal cell carcinoma (86%), and the most frequent site was the nasal region (46%), followed by the temporofrontal, orbital, and oral regions (18% each). The area of the lesions ranged from 1 to 24 cm² (median: 2 cm² and interquartile range: 3.1 cm²).

Of the 22 patients who completed the study, 12 (54.5%) were women and 10 (45.5%) were men. Five (23%) of these patients had new skin carcinomas during the follow-up period. The comparison between the patient group assessed after five years (n=22) and those patients who did not complete the

follow-up (n=28) regarding demographic and clinical data is shown in table 1. There was no statistical difference between the two patient groups considering all the variables.

The comparison between the preoperative and 5-year postoperative times in terms of the domains of the SF-36 and the Rosenberg Self-Esteem Scale/UNI-FESP-EPM are shown in table 2. There was a significant improvement in the domain mental health (p=0.011). There were no significant differences in relation to the other domains of the SF-36 or the self-esteem scale.

DISCUSSION

Head and neck skin carcinomas are a common type of cancer, accounting for 80% of the nonmelanoma skin tumors affecting these regions.[17] Consequences of this disease and its treatment may include physical and psychological disorders.[9,17] Both the lesions and scars resulting from surgical treatment may cause different degrees of deformities, and any kind of facial disfigurement may result in anxiety, depression, and social isolation.[18]

TABLE 1: Comparison between the patient group reassessed after five years (Group I, n=22) and the group of patients who did not complete the follow-up (Group II, n=28) regarding demographic and clinical variables

	Group I (n=22)	Group II (n=28)	Group I vs. Group II
	Median (IQR*)	Median (IQR*)	Mann-Whitney test
Age (years)	66.5 (20.0)	56.5 (18.2)	p = 0.105
Lesion area (cm²)	1.8 (3.6)	2.1 (2.6)	p = 0.477
Gender	**n (%)**	**n (%)**	**Chi-square test or Fisher's exact test**
Male	10 (45.5%)	17 (60.7%)	p= 0.282
Female	12 (54.5%)	11 (39.3%)	
Skin type			**p = 0.106**
I - II	18 (81.8%)	17 (60.7%)	
III - IV	4 (18.2%)	11 (39.3%)	
Type of carcinoma			**p = 0.638**
Basal cell carcinoma	19 (86.4%)	24 (85.7%)	
Squamous cell carcinoma	3 (13.6%)	4 (14.3%)	
Site			p = 0.365
Nasal	7 (31.8%)	16 (57.1%)	
Temporofrontal	5 (22.7%)	4 (14.3%)	
Orbital	5 (22.7%)	4 (14.3%)	
Oral	5 (22.7%)	4 (14.3%)	

*IQR = interquartile range

TABLE 2: Comparison between the preoperative period and the 5-year postoperative period regarding the SF-36 domains and the scores on the Rosenberg Self-Esteem Scale - UNIFESP/EPM

	Preoperative		Postoperative		
Domains	**Median**	**IQR***	**Median**	**IQR***	**Wilcoxon test**
Physical functioning	90	17.5	88	31.2	p = 0.185
Physical role functioning	100	68.7	100	43.7	p = 0.546
Bodily pain	72	38.0	67	46.0	p = 0.816
General health perceptions	80	18.7	82	10.0	p = 0.541
Vitality	75	25.0	88	22.5	p = 0.209
Social role functioning	100	22.0	100	9.7	p = 0.843
Emotional role functioning	100	58.7	100	0	p = 0.134
Mental health	74	36.0	88	12.0	p = 0.011
Self-esteem	7	4.7	2	4.0	p = 0.002

*IQR = interquartile range

Quality of life measures are essential to evaluate the results of cancer treatment; however, quality of life instruments are not routinely used to evaluate the results of oncologic surgery.[19] Currently, assessing cancer patients' quality of life is an useful tool to measure the treatment outcomes from the patients' perspective, because it makes it possible to understand how different therapeutic interventions have an influence on outcomes.[20]

Quality of life assessment tools have been developed and used to detect disorders related to emotional state, general physical condition, and social interaction. Such assessments make it possible to design appropriate intervention programs that may change those variables that have a negative influence in the multidisciplinary approach of cancer patients.[17,21]

In a study of 100 subjects, 50 patients with skin carcinoma and 50 patients without cancer, Carvalho et al. found that patients with skin carcinoma had lower self-esteem compared with the control group. These authors also found that the impact on self-esteem was higher among younger people.[22]

Conversely, in a study of 30 patients undergoing nasal reconstruction, mainly due to skin carcinomas, Moolenburgh et al. found that, contrary to expectations, these patients did not have low levels of self-esteem. The authors explained this finding based on the fact that self-esteem is formed in early puberty. As these patients were evaluated only in the postoperative period, there was not a parameter for comparison. However, these findings are in agreement with the high level of self-esteem shown by our patients in the late postoperative period.[23]

A study of 52 patients with nonmelanoma skin cancer who completed the German version of the Dermatology Life Quality Index questionnaire showed that 31% of the patients experienced moderate to strong impairment in their quality of life. Such impairment involved symptoms, emotions, daily living activities, and leisure activities, whereas the disease had less impact on work and school activities.[24] Similarly, our patients showed improvement in mental health and self-esteem after treatment, but there was no significant difference related to the physical domain of the SF-36.

The present study was useful to analyze the impact of the surgical treatment of head and neck skin cancer on quality of life and self-esteem of patients in the 5-year postoperative period. The long follow-up period resulted in a considerable rate of loss to follow-up (56%) of the patients included in the study. Although we actively tried to contact patients, 24 patients could not be found. In addition, three patients died and one did not agree to undergo late assessment. We believe that this rate of loss to follow-up can be explained by the minimally invasive nature of skin carcinomas. In most cases, skin excision with adequate margins can cure the disease without the need for adjuvant treatment. Therefore, many patients do not bother to return for follow-up.

Conversely, among the patients who completed the 5-year follow-up, we found significant improvement in self-esteem and in the domain mental health in the late postoperative period, which demonstrates the negative impact of skin carcinomas on these individuals' psychological components of quality of life. Considering that there was no statistical difference between the group of 22 patients who completed the follow-up and the group of patients who were not reassessed regarding sociodemographic and clinical variables, it is possible to conclude that this sample of 22 patients is representative of the study population.

CONCLUSION

In the late postoperative period, those patients who underwent surgical treatment of skin carcinoma showed improvement in mental health and self-esteem. ❑

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