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## CASE AND RESEARCH LETTER

### [Translated article] Quality of Life in Patients of Advanced Age With Basal Cell Carcinoma: Analysis and Implications for Approach to Treatment

#### Análisis de la calidad de vida en pacientes ancianos con carcinoma basocelular y su implicación en la actitud terapéutica

To the Editor,

Basal cell carcinoma (BCC) is the most common malignancy<sup>1,2</sup> and it becomes even more common with age. Its prevalence among elderly patients is high and rising.<sup>3</sup> Age and health status are not generally contemplated when making treatment decisions,<sup>4,5</sup> but the benefits of surgery in patients with limited life expectancy are a topic of debate.<sup>5,6</sup> The latest clinical guidelines on the diagnosis and treatment of BCC consider topical treatments or photodynamic therapy as valid alternatives for patients who are not eligible for surgery because of age or comorbidity.<sup>7</sup>

Although there are studies on the epidemiology and characteristics of BCC in elderly patients,<sup>8</sup> we found no publications on the possible effects of invasive treatment on quality of life. The controversies regarding BCC treatment in very elderly patients have been highlighted by several authors.<sup>8–10</sup>

We conducted a prospective observational study of patients older than 85 years with histologically confirmed BCC who were referred to our department between June 2018 and May 2019. Patients unable to answer the quality of life survey on their own were excluded. Verbal consent was obtained from the patients selected, who were previously informed that if they decided to participate, the clinical data they would be asked to fill in and their survey answers would only be used for the purpose of this study.

The main study variable was change in quality of life after surgery. Quality of life was assessed using the val-



idated Spanish version of the 36-Item Short Form Survey (SF-36) (see supplementary material), which patients completed before and 3 months after surgery. The SF-36 has 36 items that assess positive and negative aspects of physical and mental health. We also collected information on demographics, tumor characteristics, type of surgery, and postoperative complications.

Results were expressed as numbers and frequencies and mean and median for continuous variables. For the inferential analysis, normality of distribution was first tested using the Kolmogorov–Smirnov and Shapiro–Wilk tests. Normally distributed variables (physical functioning, general health, and vitality) were compared using the paired *t* test, while non-normally distributed variables (self-reported changes in health, physical role, bodily pain, social functioning, emotional role, and mental health) were compared using the Wilcoxon test. Results were also stratified according to the presence of multimorbidity, facial BCC, and tumor size.

Twenty-five patients met the selection criteria and were included. Forty-eight had completed the presurgery questionnaire but 5 did not undergo surgery due to deterioration in their health, 3 canceled the operation after being added to the wait list, 4 were referred to outpatient clinics elsewhere for surgery and were lost to follow-up, 6 chose not to continue in the study, and 5 received a pathologic diagnosis of a lesion other than BCC. Of the 25 patients included (Table 1), 17 were men and 8 were women; their mean age was 87 years. The most common histologic subtype was nodular BCC (*n* = 18), followed by infiltrative BCC.<sup>5</sup> Median tumor size was 10 mm (range, 4–30 mm). Fifteen patients had to undergo surgery in the operating theater in the presence of an anesthesiologist because of their health status or the nature of their tumor. Five patients developed complications (bleeding, infection, persistence of lesion, and wound dehiscence).

On comparing the SF-36 answers from before and after surgery, the only significant difference observed in the full sample was for physical role (*P* = .026), which had deteriorated (Table 2). In the stratified analyses, significant differences were detected for physical role in patients with multiple comorbidities, physical role and mental health in patients with a facial BCC, and general health and social function for patients with a tumor larger than 1 cm. Quality of life as measured by these items was worse after surgery in all 3 cases (Table 3).

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**Table 1** Descriptive Analysis.

	No.	%	Mean	Median
<i>Sex</i>				
Male	17	68		
Female	8	32		
<i>Age, y</i>			87	86
<i>Multimorbidity</i>				
No	6	76		
Yes	19	24		
<i>Number of tumors</i>				
1	17	68		
>1	8	32		
<i>Histologic subtype</i>				
Nodular	18	72		
Infiltrative	5	20		
Mixed	1	4		
<i>Tumor location</i>				
Scalp	1	4		
Forehead	6	24		
Nose	7	28		
Cheek	3	12		
Upper lip	1	4		
Lower lip	1	4		
Chin	1	4		
Ear	2	8		
Neck	1	4		
Upper extremity	0	0		
Back	2	8		
<i>Surgical margins</i>				
Clear	24	96		
Affected	1	4		
<i>Largest diameter, mm</i>			11	10
<i>Complications</i>				
None	20	80		
Persistent lesion	2	8		
Bleeding	1	4		
Infection	0	0		
Dehiscence	1	4		
Bleeding and infection	1	4		
<i>Follow-up time, mo</i>			13	7

Despite the scarcity of studies, BCC appears to have little overall impact on the quality of life of very elderly patients,<sup>8</sup> as the lesions are often indolent and do not interfere with activities of daily living.<sup>10</sup>

Some authors have called for a more conservative approach to the treatment of BCC in elderly patients, highlighting the importance of other factors such as current health, multimorbidity, interference with activities of daily living, and impact of the proposed treatment.<sup>8</sup> The argument is that aggressive treatment of a slow-growing tumor may have fewer benefits in a patient with limited life expectancy who may well die before the tumor progresses or recurs.<sup>11</sup>

Other authors, however, believe that the goal should be to improve patient quality of life, regardless of age, as it is difficult to predict life expectancy and BCC can progress, causing greater morbidity.<sup>10</sup>

Our results show that elderly patients who underwent surgery for BCC did not experience a statistically significant improvement in quality of life. Nonetheless, our findings must be interpreted with caution, as deterioration of physical function is common in elderly patients and the SF-36 is not specific to BCC. Excision of a facial lesion is likely to have a negative effect on quality of life, as a visible wound could restrict a patient's usual activities or social life or cause additional anxiety due to cosmetic concerns. Similar

**Table 2** Statistical analysis for full sample.

T test	Mean before surgery	Mean after surgery	Significance
Physical functioning	54.2	49.8	.214
General health	6.8	53.44	.125
Vitality	53.6	52.8	.919
Wilcoxon	Sum of ranks (–)	Sum of ranks (+)	Significance
Self-reported health changes in past year	16	29	.417
Physical role	21	0	.026
Bodily pain	122.5	48.5	.107
Social functioning	124.5	85.5	.464
Emotional role	57	34	.417
Mental health	215	85	.62

**Table 3** Stratified Statistical Analysis.

	Sum of ranks (–)	Sum of ranks (+)	Significance <sup>a</sup>
<i>Patients with multimorbidity</i>			
Physical functioning	72	48	.493
General health	111.5	59.5	.257
Vitality	78	93	.744
Self-reported health changes in past year	5	16	.234
Physical role	15	0	<b>.042</b>
Bodily pain	81	24	.073
Social functioning	77	59	.639
Emotional role	37.5	28.5	.686
Mental health	115.5	55.5	.19
<i>Facial location</i>			
Physical functioning	78.5	26.5	.101
General health	131	59	.147
Vitality	97	93	.936
Self-reported health changes in past year	9	19	.38
Physical role	15	0	<b>.039</b>
Bodily pain	74.5	3.5	.167
Social functioning	70	66	.917
Emotional role	29.5	25.5	.837
Mental health	145.5	44.5	<b>.042</b>
<i>Size &gt; 1 cm</i>			
Physical functioning	29.5	6.5	.106
General health	40	5	<b>.038</b>
Vitality	26.5	9.5	.233
Self-reported health changes in past year	6	0	.083
Physical role	0	0	1
Bodily pain	17.5	3.5	.141
Social functioning	15	0	<b>.043</b>
Emotional role	12	3	.216
Mental health	28	8	.159

<sup>a</sup> Figures in bold indicate a statistically significant result.

effects might be seen for social functioning. Finally, a not insignificant proportion of patients in our series (20%) developed postoperative complications, adding to their burden of disease.

In conclusion, decisions regarding BCC treatment in patients aged over 85 years of age are complicated, as life expectancy is uncertain and elderly patients may have

comparable health and autonomy to younger patients. Specific clinical guidelines are lacking. Considering that we did not detect a significant improvement in quality of life after surgery, we believe that surgery as a first-line treatment for BCC should be discussed with patients and their caregivers or relatives, along with alternative options.

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## Conflicts of interest

The authors declare that they have no conflicts of interest.

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