

## Health-Related Quality of Life in Skin Cancer Patients

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As the most common form of cancer in the United States,<sup>1</sup> dermatologists often focus on treating the physical aspects of skin cancer, but it is equally important to consider the consequences that this disease has on a patient's quality of life (QOL). Health is a dynamic process, encompassing one's physical, emotional, and psychosocial well-being. There are a number of ways to measure health outcomes including mortality, morbidity, health status, and QOL. In recent years, health-related QOL (HRQOL) outcomes in dermatology have become increasingly important to clinical practice and may become factors in quality measurement or reimbursement.

Understanding a patient's HRQOL allows health care providers to better evaluate the burden of disease and disability associated with skin cancer and its treatment. Clinical severity is not always able to capture the extent to which a disease affects one's life.<sup>2</sup> Furthermore, physician estimation of disease severity is not always consistent with patient-reported outcomes.<sup>3</sup> As such, clinical questionnaires may be invaluable tools capable of objectively reporting a patient's perception of improvement in health, which may affect how a dermatologist approaches treatment, discussion, and maintenance.

### Nonmelanoma Skin Cancer

Most nonmelanoma skin cancer (NMSC) occurs in readily visible areas, namely the head and neck. Surgical treatment minimizes recurrence and complication rates. Nonmelanoma skin cancer has a low mortality and a high cure rate if diagnosed early; therefore, it may be difficult to assess treatment efficacy on cure rates alone. The amalgamation of anxiety associated with the diagnosis, aesthetic and functional concerns regarding treatment, and long-term consequences including fear of future skin cancer may have a lasting effect on an individual's psychosocial relationships and underscores the need for QOL studies.

Most generic QOL and dermatology-specific QOL instruments fail to accurately detect the concerns of patients with NMSC.<sup>4-6</sup> Generic QOL measures used

for skin cancer patients report scores of patients that were similar to population norms,<sup>4</sup> suggesting that these tools may fail to appropriately assess unique QOL concerns among individuals with skin cancer. Furthermore, dermatology-specific instruments have been reported to be insensitive to specific appearance-related concerns of patients with NMSC, likely because skin cancer patients made up a small percentage of the initial population in their design.<sup>4,7</sup> Nevertheless, dermatology-specific instruments may be suitable depending on the objectives of the study.<sup>8</sup>

Recently, skin cancer-specific QOL instruments have been developed to fill the paucity of appropriate tools for this population. These questionnaires include the Facial Skin Cancer Index, Skin Cancer Index, and the Skin Cancer Quality of Life Impact Tool.<sup>7</sup> The Skin Cancer Index is a 15-item questionnaire validated in patients undergoing Mohs micrographic surgery and has been used to assess behavior modification and risk perceptions in NMSC patients. Importantly, it does ask the patient if he/she is worried about scarring. The Facial Skin Cancer Index and the Skin Cancer Quality of Life Impact Tool do not take into account detailed aesthetic concerns regarding facial disfigurement and scarring or expectations of reconstruction.<sup>7</sup> It may be prudent to assess these areas with supplemental scales.

### Melanoma

Melanoma, the third most common skin cancer, is highly aggressive and can affect young and middle-aged patients. Because the mortality associated with later-stage melanoma is greater, the QOL impact of melanoma differs from NMSC. There are also 3 distinct periods of melanoma HRQOL impact: diagnosis, treatment, and follow-up. Approximately 30% of patients diagnosed with melanoma report high levels of psychological distress.<sup>9</sup> The psychosocial effects of a melanoma diagnosis are longitudinal, as there is a high survival rate in early disease but also an increased future risk for melanoma, affecting future behaviors and overall QOL. The diagnosis of melanoma also affects family members due to the increased risk among first-degree relatives. After removal of deeper melanoma, the patient remains at risk for disease progression, which can have a profound impact on his/her social and professional activities and overall lifestyle.

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There may be a role for longitudinal QOL assessments to monitor changes over time and direct ongoing therapy.

The proportion of patients with melanoma who report high levels of impairment in QOL is comparable to that seen in other malignancies.<sup>10</sup> Generic QOL instruments have found that melanoma patients have medium to high levels of distress and substantial improvement in HRQOL has been achieved with cognitive-behavioral intervention.<sup>11</sup> Quality-of-life studies also have shown levels of distress are highest at initial diagnosis and immediately following treatment.<sup>12</sup> In a randomized surgical trial, patients with a larger excision margin had poorer mental and physical function scores on assessment.<sup>13</sup> Skin-specific QOL instruments have been used in studies of patients with melanoma and found that postmelanoma surveillance did not impact QOL. Also, women experienced greater improvements in QOL over time after reporting lower scores immediately postsurgery.<sup>13</sup>

The FACT-melanoma (Functional Assessment of Cancer Therapy) is a melanoma-specific HRQOL assessment that has been used in patients undergoing clinical trials. It has been shown to distinguish between early and advanced-stage (stages III or IV) HRQOL issues.<sup>14</sup> Patients with early-stage melanoma are more concerned with cosmetic outcome, and those with later-stage melanoma are more concerned with morbidity and mortality associated with treatment.

### Comment

Choosing the best QOL instrument depends on the specific objectives of the study. Although generic QOL questionnaires have performed poorly in studies of specific skin diseases and even dermatology-specific tools have shown limited responsiveness in skin cancer, a combination of tools may be an effective approach. However, dermatologists must be cautious when administering these valuable tools to ensure that they do not become a burdensome task for the patient.<sup>15</sup> Although no single skin cancer-specific QOL tool is perfect, it is likely that the current questionnaires still allow for aid with appropriate patient management and comparison of treatments.<sup>16</sup>

It behooves clinicians to recognize and appreciate the value of QOL instruments as an important adjunct to treatment. These tools have shown QOL to be an independent predictor of survival among many types of cancer patients, including melanoma.<sup>10</sup> Currently, the psychological and emotional needs of skin cancer patients often go overlooked and undetected by conventional methods. Within one's own practice, introducing QOL assessments can improve patient self-awareness and physician awareness of matters that may have a greater impact on patient health. On a larger scale, introducing patient-reported outcome

measures can affect resource allocation by identifying patient populations that may be most impacted and can give a comprehensive method for physicians to gauge treatment efficacy, leading to improved outcomes.

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