Basal cell carcinoma in older adults: how to decide when active surveillance or watchful waiting are appropriate?

Laura Van Coile,^{1,2} Evelien Verhaeghe,^{1,2} Katia Ongenae,¹ Lieve Brochez^{1,2} and Isabelle Hoorens^{1,2}

¹ Department of Dermatology University Hospital Ghent, Belgium

² Cancer Research Institute Ghent (CRIG), Belgium

Corresponding author: Isabelle Hoorens, MD, PhD

Email: Isabelle.Hoorens@uzgent.be

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Dear Editor,

The need for guidelines in the approach of basal cell carcinoma (BCC) in older persons is evident and needs our urgent attention in view of their rapidly increasing numbers. The clinical decision whether or not to treat patients, is influenced by various patient and tumor characteristics such as comorbidities, frailty, lesion size and location, multiplicity, possible symptoms and patient preference.

It is widely accepted that overdiagnosis of some low-grade tumors could possibly cause more harm than benefit. In oncology, a well-studied example is low-grade prostate cancer. Investigations and procedures can in certain patients bring inseparable associated healthcare risks and costs, as well as large and often exhausting efforts for the patient.

In the field of dermato-oncology, BCC is typically known as an indolent tumor, inevitably leading to the question what risk an untreated BCC would bring. Mortality is rare and the occurrence of metastasis is reported to be 0.0028% to 0.5%.(1) Nonetheless, these tumors can influence the quality of life (QoL)

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by a local invasive and destructive growth, resulting in disfigurement, functional complications, secondary infections, pain or psychological burden for the patient. However, we still face a large knowledge gap regarding clear data on the health-related quality of life (HrQoL) in BCC patients. The very few studies available have shown a lower HrQoL in younger patients and a larger improvement in HrQoL post-Mohs' micrographic surgery in younger compared to older patients.(2) However, we need to use a disease specific questionnaire, for example the one recently developed by the group of Waalboer-Spuij. Capturing the influence of all aspects of BCC diagnosis and treatment on the HrQoL remains necessary.(3) Our group is currently studying the HrQoL in a large number of patients with keratinocyte carcinomas (clinicaltrials.gov NCT04814953). This will help treatment considerations in specific patient populations.

Due to the indolent growth of BCCs, patients with a life expectancy of ≤5 years will probably not benefit from any treatment, as this will most likely not improve survival within five years of follow-up. In these patients a watchful waiting approach could be the best choice. An interesting viewpoint was recently published in the JAMA, suggesting active surveillance as management option for low-risk basal cell carcinoma.(4) In active surveillance, an intense follow-up is provided in which the basal cell carcinoma is being monitored. Another treatment approach would be watchful waiting. Unlike active surveillance, watchful waiting carries a palliative non-aggressive intent. It does not involve routine monitoring or procedures. We strongly believe this active surveillance could make room for a watchful waiting strategy in older patients with BCCs. This strategy could limit unnecessary consultations and prevents frail patients coming to the dermatology clinic too often. With this approach patients with symptomatic progression from BCC impacting their HrQoL could be offered (non-invasive) treatments to alleviate these symptoms without the intent to cure. In this strategy, it remains of high importance to inform patients as well as their general practitioner about when to contact the dermatologist (rapid growth, symptomatic BCC, psychological burden,...) and to provide accurate contact details.

To implement this approach in daily practice, robust data on the natural behavior of BCC is also highly needed. Our group advocated earlier in the BJD that detection and management for BCC seems mainly of importance for the facial H-area in younger patients.(5) However, the growth velocity is most important to estimate the available window for watchful waiting in patients with limited life expectancy, even in the H-area. A study of Wehner et al. on the natural history of untreated lesions suspicious for BCC in older adults showed an overall change in size of 2.5 mm²/month and a divergent growth pattern in these BCC-suspicious lesions. We agree with the authors that these findings need to be confirmed in larger studies.(6) Current observational studies performed with biopsies (7) are informative, but scarring reactions distort the natural evolution and can bias the data on growth velocity. The new *in vivo* diagnostic imaging techniques offer, in lesions with a high clinical suspicion

of BCC, relative high sensitivity and specificity in diagnosing and mapping skin tumors without impacting their growth. These *in vivo* imaging techniques should be used in clinical research and offer exciting perspectives for studying BCCs *in vivo*.

To conclude, a large pragmatic randomized controlled trial (RCT) comparing treatment versus no treatment head-to-head in older persons (for example for 3 years) is essential. It would offer valuable information concerning HrQoL, complication risks and survival in treated and non-treated BCC patients: does BCC treatment impact QoL more significantly than an indolent BCC? Such a RCT would deliver the necessary evidence for recommendations in older adults with BCCs and could potentially identify a subpopulation suitable for a watchful waiting strategy. The non-treatment arm also offers the opportunity of finally mapping the exact biological behavior and growth velocity in untreated (and unbiopsied) BCCs.

References

1. von Domarus H, Stevens PJ. Metastatic basal cell carcinoma. Report of five cases and review of 170 cases in the literature. J Am Acad Dermatol. 1984 Jun;10(6):1043–60.

2. Siegel JA, Chren M-M, Weinstock MA, Department of Veterans Affairs Keratinocyte Carcinoma Chemoprevention Trial Group. Correlates of skin-related quality of life (QoL) in those with multiple keratinocyte carcinomas (KCs): A cross-sectional study. J Am Acad Dermatol. 2016 Sep;75(3):639–42.

3. Waalboer-Spuij R, Hollestein L, Timman R, Poll-Franse L, Nijsten T. Development and Validation of the Basal and Squamous Cell Carcinoma Quality of Life (BaSQoL) Questionnaire. Acta Derm Venereol. 2018;98(2):234–9.

4. Linos E, Chren M-M. Active Surveillance as a Management Option for Low-risk Basal Cell Carcinoma. JAMA Intern Med. 2021 Aug;181(8):1032–3.

5. Hoorens I, Vossaert K, Ongenae K, Brochez L. Is early detection of basal cell carcinoma worthwhile? Systematic review based on the WHO criteria for screening. Br J Dermatol. 2016 Jun;174(6):1258–65.

6. Wehner MR, Dalma N, Landefeld C, Pare-Anastasiadou A, Koutelidas I, Chren MM, e.a. Natural history of lesions suspicious for basal cell carcinoma in older adults in Ikaria, Greece. Br J Dermatol. 2018;179(3):767–8.

7. van Winden MEC, Hetterschijt CRM, Bronkhorst EM, van de Kerkhof PCM, de Jong EMGJ, Lubeek SFK. Evaluation of Watchful Waiting and Tumor Behavior in Patients With Basal Cell Carcinoma: An Observational Cohort Study of 280 Basal Cell Carcinomas in 89 Patients. JAMA Dermatol. 2021 Oct;157(10):1174-1181.