Basal Cell Carcinoma: Clinical Practice Assessment and Educational Gap Analysis

Tara Herrmann, PhD1; S. Frieda Pearce, PhD1; Chad Williamson, MS, MBA2; Pamela Peters, PhD1; Glen J. Weiss, MD, MBA3

1 Medscape, LLC, New York, NY, USA; 2 CE Outcomes, LLC, Birmingham, AL, USA; 3 Cancer Treatment Centers of America, Goodyear, Arizona, USA

Background

Basal cell carcinoma (BCC) is one of the most common malignant tumors of the skin in humans, and its prevalence has increased more than 2-fold since the 1960s. Mortality from BCC is low, but the disease causes considerable morbidity, places a large burden on healthcare resources, and can have a substantial negative effect on patients’ quality of life. A study was conducted to identify knowledge and clinical practice gaps among dermatologists involved in BCC management.

Methods

- The needs assessment survey consisted of 23 items based on previous needs assessments and current evidence-based consensus guidelines.
- The assessment design included confidence as well as knowledge-based and case-based, multiple-choice questions made available online to Medscape’s membership of healthcare providers without monetary compensation or charge.
- Case vignettes and associated assessment responses were analyzed to define the gaps in clinicians’ baseline knowledge, skills, attitudes, practice patterns, and perceived barriers related to the optimal management of patients with BCC.
- The assessment instrument and the reporting metrics were organized by the assessment domains of etiology, risk stratification, emerging understanding of pathogenesis, and current and emerging treatment strategies for advanced or metastatic BCC.
- Confidentiality of survey respondents was maintained and responses were de-identified and aggregated prior to analysis.
- The assessment was launched online on Medscape Education Dermatology and Medscape Education Oncology at http://www.medscape.org/viewarticle/765900 on June 25, 2012. Participant response data were gathered 30 days following posting and analyzed.
- In addition to providing baseline information on clinical practice gaps, the data obtained from the assessment were designed to serve as the control group for the clinical practice outcomes assessment of the educational curriculum. Questions from the clinical practice assessment are aligned to individual curriculum activities and posed to participants following completion of each curriculum activity, to assess the impact of the curriculum. Results of the impact of the curriculum on dermatologists’ knowledge and competence will be presented at a future date.

Sample Demographics

In total, 105 dermatologists responded to the survey. Dermatologists participating in the clinical practice self-assessment saw an average of 21 patients with BCC per week. A majority (60%) of dermatologists reported that they saw more than 50 patients with BCC per week. In addition, 28% reported that they often to always engage with physicians in other specialties to co-manage their patients with BCC, while 30% stated they rarely engage in multidisciplinary care of their patients with BCC.

Results

Specific identified educational gaps among dermatologists who completed the self-assessment include the following:

- 26% did not appropriately attribute an adult patient’s multiple BCC lesions to repeated summer sun exposures during childhood
- 83% were not aware that vitamin A does not target smooth muscle protein in the hedgehog signaling pathway
- 15% would not appropriately select vismodegib for a patient with metastatic BCC
- Lack of familiarity and confidence in managing BCC:
  - Only 30% are familiar to extremely familiar with micrographic surgery. There is ill-defined swelling of the right lateral canthus, a palpable lymph node in the cervical lymph node chain, which is biopsied. The node contains metastatic BCC.
- Radiation therapy
- Surgery
- Interferon-alpha
- Confidentiality of survey respondents was maintained and responses were de-identified and aggregated prior to analysis.

Figure 1. Treatment selection in a woman with a 2.5-cm lesion

A 45-year-old woman presents to your ED with a slightly rough plaque, BCC 2.5 cm high, and no history of previous lesions or a family history. She herself presents a well-defined, cosmetically benign lesion with no tenderness. It is cleared with curettage. The patient returns for follow-up in 6 months. If we take into account the patient’s history, do you think the lesion is squamous cell carcinoma BCC? Does this lesion have a good outcome? If this lesion were to measure 2.5 cm in size, what would you consider to be the most appropriate therapy for your patients with high-risk BCC?

Figure 2. Alterations in the hedgehog signaling pathway and Gorlin syndrome

As 95-year-old man presents with 2.5-cm, raised, nodule-like plaque on the right temple, which increased over the right lateral canthus. This lesion has been gradually enlarging over the last 5 years. The patient has no significant medical problems except for mild Alzheimer disease and blindness in the right eye.

Figure 3. Treatment of metastatic BCC upon progression

A 55-year-old man is diagnosed with disseminated BCC metastases to the face, chest, and back. The patient is then treated with platinum-based doublet chemotherapy. Overall, he still has good performance status.

Figure 4. Confidence in selecting the most appropriate therapy for patients with advanced BCC

How confident are you determining the best treatment option for your patients with advanced or metastatic BCC?

Figure 5. Confidence in management of adverse effects associated with treatment for BCC

How confident are you managing patients on rezovudin and medications that require frequent monitoring for adverse effects and frequent follow-up?

Conclusions

This self-assessment of dermatologists’ clinical practices identified gaps in risk stratification and management of BCC, which include lack of awareness of patched homolog 1 (PTCH1) mutations in Gorlin syndrome, appropriate criteria for Mohs surgery, and appropriate systemic treatment options for metastatic BCC. Additional follow-up will measure the impact of the educational activity on improving the knowledge, skill, and performance of participating dermatologists in the care of their patients with advanced BCC.

Acknowledgements

The Clinical Practice Assessment (baseline self-assessment instrument) was funded in part through an independent educational grant from Genentech. Review and editorial assistance were provided by Rachel Meyers and Christopher Clarke, both of Medscape Education.

For more information, contact Tara Herrmann, PhD Director, Educational Strategy, Medscape, LLC, herrmann@medscape.net