COMMENT

Highlights from the 5th Canadian Melanoma Conference

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The 5th Canadian Melanoma Conference held February 24–27, 2011 in Banff, Alberta provided the opportunity to discuss key advances in the field of melanoma.

**BASIC SCIENCE AND PATHOLOGY**

Memorial Sloan-Kettering Cancer researcher Dr. Boris Bastian presented on therapeutic targets in melanoma, identifying the credentialed melanoma oncogenes BRAF, BRAS, c-Kit, GNA1 and GNA11. The clinical context of mutations in these oncogenes correlates to the clinical presentation. For example, in nonchronic sun-exposed melanomas, primary melanomas typically arise in younger patients with intermittent sun exposure and the melanoma usually develops on covered sites such as the trunk. Patients with many nevi and melanoma usually present with BRAF mutation or, less frequently, the NRAS oncogene. The frequency of BRAF mutation decreases with age in this category of melanoma.

The second category is composed of 2 melanoma types: chronic sun-damaged (lentigo maligna) and acral/mucosal melanomas. Lentigo maligna melanomas typically arise in older patients with primary sites on chronically sun-exposed sites such as the face. Acral and mucosal melanomas are often diagnosed late and are usually unrelated to sun exposure. These melanomas are associated with various mutations, c-Kit being the most frequent.

Other key topics were micro-RNAs and gene slicing in cutaneous melanoma, the blue spectrum of cutaneous melanoma, including risk factors. The importance of dermoscopy in early and accurate diagnosis and the ideal biopsy techniques for suspicious pigmented lesions were discussed. Also addressed were surgical approaches in the excision of melanoma, with particular attention to the role of Mohs micrographic surgery in the treatment of lentigo maligna. The role of the topical immunomodulator imiquimod for lentigo melanoma was also reviewed.

The challenges of head and neck melanomas as well as management of Stages III and IV melanoma were presented by surgical oncologists Dr. Kathryn Roth from the University of Western Ontario and Dr. Vernon Sondak from the Moffit Cancer Center in Tampa, Florida, respectively. Management of melanomas of the head and neck was reported to be particularly difficult due to complex anatomy and lymphatic drainage. The availability of improved imaging and minimally invasive surgical techniques and the failure of nonsurgical treatments to improve OS were noted as reasons why surgery remains the main treatment.

Keynote speaker Dr. Dirk Schadendorf from the Mannheim University Hospital in Germany reported on the importance of molecular discoveries in the development of targeted therapies. New molecules (e.g. vemurafenib, GSK2118436) that inhibit the BRAF mutation show promising results. In terms of c-Kit inhibition in lentigo maligna or acral/mucosal melanomas, a new molecule, nilotinib, has demonstrated good response rates and mild, manageable adverse events in Phase II and III trials. Another group of molecules currently being studied are the MEK inhibitors (BRAF and NRAS mutant cell lines are sensitive to MEK inhibition).

**IMMUNOLOGY AND SYSTEMIC THERAPY**

Presentations featured the role of new molecules targeted to genetic abnormalities found in metastatic melanoma and the current status of adjuvant treatment with interferon in advanced melanoma. Dr. Jeff Weber from the Moffit Cancer Center offered an excellent review on the current status of immunotherapy for metastatic melanoma with ipilimumab. This inhibitor of the CTLA-4 receptor on T cells allows the regression of metastatic melanoma in a good percentage of patients. The main side effects, immune dermatitis, colitis, endocrinopathies and hepatitis, can be severe and must be detected early, but are manageable.

The 6th Canadian Melanoma Conference will be held at the beginning of 2012 in Banff, Alberta (www.buksa.com/melanoma).

Key findings

- Surgery is the main treatment for malignant melanoma, but targeted therapies are on the horizon — pharma pipelines are promising.
- Different genetic signatures discriminate multiple melanoma subtypes: 40%–60% of all Stage IV melanomas have BRAF mutation.
- Genetic subgrouping reveals new opportunities for targeted therapies: further studies/drug combinations will advance efficacy and prolong OS in subsets of patients.

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