Scalp Melanoma: The Sunbelt Melanoma Trial

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Introduction

The prognostic significance of many histopathologic factors in patients with melanoma is well established. These include regional lymph node status, tumor thickness and ulceration. Controversy exists surrounding the primary melanoma site as an independent predictor of survival. Some reports found melanoma of the scalp to portend a poorer prognosis when compared to other anatomic sites. The acronym BANS (upper back, posterior arm, neck and scalp) was coined to describe a constellation of these anatomic sites in which melanoma appeared to be associated with a worse prognosis in comparison to other sites. Differing studies concluded that prognosis is no different based on anatomic site.

Regardless, many previous investigations failed to compare subsites within the head and neck. Given the infrequent incidence of scalp melanoma, its complex and variable lymphatic drainage patterns and the potential delay in diagnosis in this hair bearing area, different clinicopathologic features affecting survival may be present in this area compared to other anatomic sites within the head and neck.

Objective

To evaluate the clinicopathologic factors and prognosis associated with scalp melanomas in comparison to non-scalp melanomas of the head and neck.

Methods

The Sunbelt Melanoma Trial is a multi-institutional, prospective, randomized study approved by the Institutional Review Boards of the involved 79 centers in North America. The trial was designed to identify which patients would benefit most from adjuvant therapy. This study includes all patients enrolled from June 1997 to October 2003—now closed to accrual. Of 3533 patients registered, 428 patients in 63 institutions carried the diagnosis of cutaneous melanoma of the head and neck. Eligible patients were 18 to 70 years with melanoma of ≥ 1.0-mm Breslow thickness and clinically uninvolved (N0) regional lymph nodes. Patients with more than one primary melanoma were excluded from the study, as were those who had already undergone wide local excision of the primary melanoma.

We then evaluated and analyzed this data with special emphasis on prognostic indicators of survival and recurrence. This included SLN status, tumor characteristics and location. The evaluation of a set of possible prognostic indicators of survival and recurrence were fitting Cox regression models. Additionally, similar models were fit for each of the location groups. Kaplan-Meier estimates of the survival function were also performed.

Results

Eighty-eight patients were enrolled with scalp melanoma. Men (79.5%) and Caucasians (100%) predominated with an average age of 49.8 years. The most common histologic subtypes were superficial spreading (39.7%), nodular (27.3%) and lentigo maligna (10.2%). The average thickness was 2.4 mm (±1.66) and 25% were ulcerated. Sentinel lymph node (SLN) positivity was seen in 20.9% of scalp melanoma patients, was more likely in younger patients (44.7 vs. 50.8 years, p = 0.04) and in those with a Breslow thickness of 2-4 mm (p = 0.005). The incidence of locoregional and distant recurrence between the scalp and non-scalp groups were similar. Overall survival for scalp melanoma patients was significantly impacted by SLN positivity (p = 0.03), while Breslow thickness and ulceration status predicted survival in non-scalp melanoma patients (p = 0.005, p < 0.0001, respectively). Similar significant findings in non-scalp melanoma patients were seen in regard to their disease free survival, while SLN positivity lost its significance in scalp melanoma patients.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Scalp Hazard Ratio (N = 61)</th>
<th>Non-Scalp Hazard Ratio (N = 235)</th>
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</thead>
<tbody>
<tr>
<td>Breslow Thickness</td>
<td>0.0 - 2.0 mm</td>
<td>Reference</td>
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<tr>
<td>&gt; 2.0 mm</td>
<td>0.9 (0.3, 2.6), p = 0.81</td>
<td>1.7 (0.9, 3.3), p = 0.13</td>
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<tr>
<td>SLN positive</td>
<td>3.0 (1.1, 7.9), p = 0.03</td>
<td>1.0 (0.4, 2.1), p = 0.95</td>
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<tr>
<td>Ulceration</td>
<td>1.8 (0.7, 4.7), p = 0.25</td>
<td>4.0 (2.1, 7.4), p &lt; 0.0001</td>
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</table>

Conclusions

SLN status was the strongest predictor of overall survival in scalp melanoma in this study. Tumor thickness and ulceration correlated with overall survival in non-scalp melanoma of the H&N. The prognostic significance of SLN status in the head and neck may vary with the melanoma site.

References