

Correlation of regression in primary melanoma with sentinel lymph node status.

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Introduction

The significance of regression in primary melanoma has been disputed for many years with approximately equal number of reports suggesting it had a worsening effect, compared with negligible or favourable effect, on prognosis (see review 1). Despite this uncertainty it has been used as a component of prognostic tables² and has been stated as an explanation of metastasis in thin metastasising melanomas^{3 & 4}. The presence of extensive regression in thin melanomas has been quoted as justification for a sentinel lymph node biopsy (SLNB)^{4, 5}.

The variation in interpretation of the significance of regression has been attributed to lack of uniformity in its definition. We have therefore attempted to understand the significance of regression in melanoma by analysing a consecutive series of patients with melanoma who had SLNB. The histological criteria for offering SLNB were that the melanomas should be >1mm in thickness, or Clark's level 4 or that regression was present. Since the definition of regression is subject to variation this aspect was defined in detail.

Regression was said to be present only if a segment of melanoma appeared to be lost and replaced by fibrosis, increased vascularity and melanophages. A variably intense lymphocytic infiltrate was usually present. The regression was allocated to 3 stages, stage 3 being represented by loss of all dermal and intraepidermal components of the melanoma.

The extent of regression as a proportion of the total length of the melanoma as represented on the histological sections was calculated and the thickness of the regression was also measured. The SLN were assessed according to the standard EORTC protocol⁶.

Results

		Regression		
		absent	present	Total
SLN	Negative	63	66	129
	Positive	<u>13</u>	<u>4</u>	<u>17</u>
		76	70	146

There is a greater proportion of individuals without regression that show SLN positivity (p=0.028) compared with those which do show regression. Similar findings have been noted elsewhere^{5 & 7}. None of Stages 1 & 2 regression cases were associated with metastases. The four positive cases all showed stage 3 regression.

The proportion of the primary lesion involved with regression and the thickness of the regression did not correlate with the SLN status.

Other factors which did correlate with the SLN status included the thickness of the primary and the mitotic count. All cases in radial growth phase who had SLNB performed because of associated regression were negative.

The underlying reasons for the discrepancy between studies which suggested regression as the explanation for metastasis in thin melanoma, and our findings here, require further study.

References:

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