Re-biopsy of Partially Sampled Thin Melanomas Impacts Sentinel Lymph Node Sampling as well as Surgical Margins

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INTRODUCTION

- The most important prognostic factor for localized melanoma is the maximal tumor thickness, known as Breslow depth.
- Breslow depth is used to guide clinicians in determining appropriate surgical margins as well the decision to surgically evaluate the regional nodal basin.
  - Cutaneous thin melanoma (≤ 1.0 mm) is managed with a 1 cm wide excision.
  - A sentinel lymph node biopsy (SLNB) is routinely performed for tumors ≥ 0.75 mm.
- Larger lesions are often initially only partially biopsied which can lead to inaccurate staging secondary to sampling error.
- At our institution, multiple punch biopsies are often performed for lesions with residual tumor in an attempt to more accurately stage lesions prior to definitive surgical resection.

OBJECTIVES

- We aim to review all patients who underwent re-biopsy of partially-biopsied tumors to determine how often surgical management (resection margins, SLNB) is changed.

METHODS

- All patients with residual pigment after the following diagnoses who underwent re-biopsy were reviewed:
  - Atypical Melanocytic Proliferation (AMP)
  - Melanoma In-Situ (MMIS)
  - Invasive Melanoma (Breslow ≤ 0.75mm)
- Patient demographics, clinicopathologic features, and changes in surgical management were reviewed.

Variable		N	%
Gender	Female	37	49.3
	Male	38	50.7
Diagnosis on Initial Biopsy	AMP/MMIS	25	33.3
	Thin Melanoma	50	66.7
Primary Tumor Site	Extremity	47	62.6
	Trunk	20	26.7
	Head and Neck	8	10.7
Types of Re-biopsy	Punch	65	86.7
	Shave	7	9.3
	Excisional	3	4.0

Table 1: Baseline demographics and clinicopathologic characteristics

RESULTS

- 75 patients met the inclusion criteria
  - 50 patients with melanoma ≤ 0.75 mm
  - 25 patients with a diagnosis of AMP or MMIS
- Mean age was 62.6 years, 51% were male.
- Most common type of initial biopsy performed was a shave biopsy (62.7%).
- Most common type of re-biopsy performed was a punch biopsy (86.7%).
- 12/75 (16%) patients had a final Breslow of > 0.75mm on re-biopsy and subsequently underwent SLNB
  - Of these 12 patients, one patient was found to have a positive node at SLNB
- 6/75 (8.0%) patients were upstaged after re-biopsy requiring a change in the size of resection margins.
  - 5/6 patients were identified as either AMP or MMIS on initial biopsy and on re-biopsy had thin melanomas.
  - 1/6 patients were upstaged from a thin melanoma to a depth ≥ 2 mm, requiring a 2 cm resection margin.
- 73/75 (97.3%) patients did not have any further upstaging of their disease requiring a potential change in surgical management after final pathology of the definitive resection.
  - 2 patients required ultrasound surveillance of the regional nodal basins postoperatively

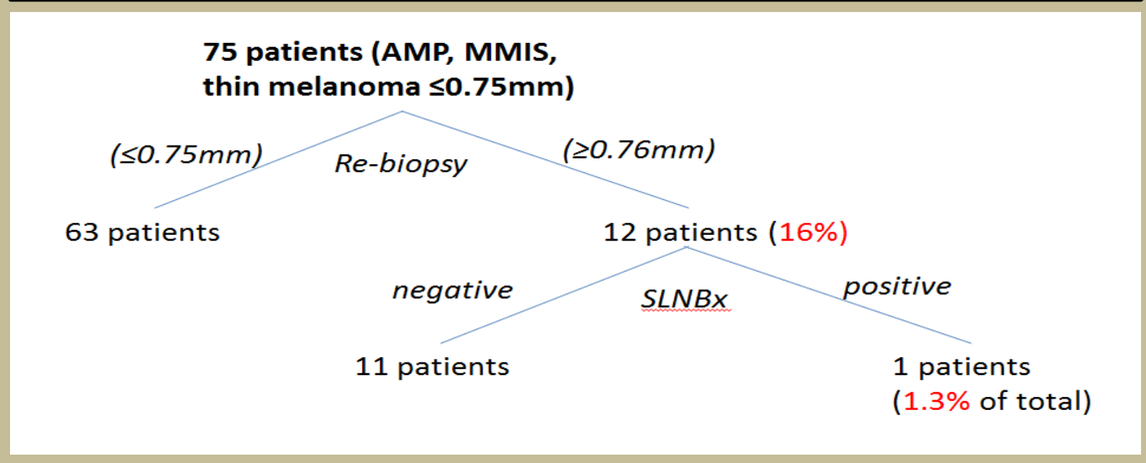

Figure 1: Impact on Sentinel Lymph Node Biopsy

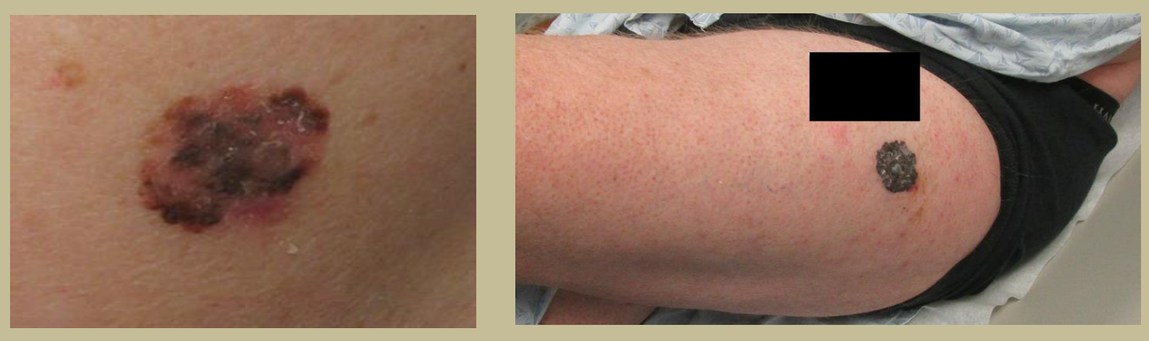

Figure 2: Partially-biopsied lesions on patients at initial consultation

CONCLUSIONS

- Re-Biopsy of partially-biopsied pre-malignant and thin melanomas can impact the decision to perform SLNB as well as the extent of surgical margins
- Re-biopsy of a partially sampled melanoma with multiple punch biopsies accurately stages the tumor in the vast majority (97.3%) of cases.