

SENTINEL LYMPH NODE BIOPSY IN DIFFICULT SPITZOID MELANOCYTIC PROLIFERATIONS

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Diagnostic Problem:

Some Spitzoid melanocytic proliferations are difficult to classify, because of unusual clinical (occurrence in an adult) and/or worrisome histologic features (e.g., many mitotic figures, lack of maturation). Such tumors have been reported as “atypical Spitz tumor”(AST), “borderline lesion”, “histologically ambiguous Spitzoid melanocytic neoplasm” or “Spitzoid melanocytic tumor of uncertain malignant potential” (aka STUMP).

Management Problem:

Many clinicians when confronted with different or ambiguous interpretations of a melanocytic tumor tend to make a pragmatic decision: as long as one or more experienced pathologists suspect malignant melanoma, they recommend a treatment algorithm as for a melanoma. This includes wide excision as well as possible staging by sentinel lymph node mapping and biopsy.

Potential role of SLN biopsy for patients with atypical Spitz tumors:

- Staging for possible melanoma, if the primary tumor meets thickness eligibility criteria
- Potential diagnostic value:

If a patient with primary melanocytic tumor with a controversial diagnosis (opinions were rendered both in favor and against malignant melanoma) underwent a SLN biopsy, the presence of metastatic tumor deposits in the node might support the malignant nature of the primary tumor.

Current experience:

A number of cancer centers have offered SLN biopsies for patients with diagnostically ambiguous Spitzoid melanocytic tumors. A significant number of such patients (28-50%) have been found to have a positive node. Many of these patients are subsequently treated under the assumption of probably having metastatic malignant melanoma. Limited follow-up experience suggests that these tumors are less aggressive than unequivocal melanomas.

Diagnostic pitfalls in the evaluation of SLNs:

- Nodal melanocytic nevus may be confused with metastatic melanoma
- False-positive immunolabeling may be confused with metastatic melanoma

Controversies:

- If the primary tumor is not unequivocally malignant, should a SLN biopsy be done?
- If a SLN biopsy is done and melanocytic tumor deposits are found in the lymph node, should the ambiguous diagnosis of the primary AST be revised to malignant melanoma and the patient be given a diagnosis of metastatic melanoma?
- If the SLN analysis is positive, is complete regional node dissection indicated?

Currently recommended approach to atypical Spitz tumors:

- 1) Review by an experienced dermatopathologist
 - Diagnosis: melanoma vs nevus vs don't know for sure (AST or STUMP or other term)
- 2) Consultation with other experienced colleagues
 - If there is general consensus on the diagnosis of nevus or melanoma; treat accordingly
 - If there is diagnostic controversy, acknowledge it; try to settle the controversy through ancillary studies, if possible
- 3) Analysis of the tumor tissue for chromosomal abnormalities by comparative genomic hybridization (CGH) or FISH
 - If no chromosomal aberration is found or an increase in the copy number of 11p, the evidence favors a nevus