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Differences in Treatment of Spitz Nevi and Atypical Spitz Tumors in Pediatric Patients Among Dermatologists and Plastic Surgeons

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No clear consensus exists for the management of Spitz nevi (SNs) or atypical Spitz tumors (ASTs), particularly in the pediatric population. Some dermatologists recommend the removal of all suspected Spitz tumors in children, whereas others perform partial biopsy or monitor clinically.¹

METHODS

We designed a 10-question survey that was sent to plastic surgeons and dermatologists practicing in the United States (eAppendix in Supplement). The online questionnaire was distributed to 1144 physicians (578 dermatologists and 566 plastic surgeons). Among the 230 physicians who completed the survey, 136 were dermatologists (59%), and 94 were plastic surgeons (41%). This study was approved by the Washington University (St Louis, Missouri) institutional review board. A 2-sided Z test for comparison of 2 proportions was used to compare responses. Data were collected from July 2010 to February 2011.

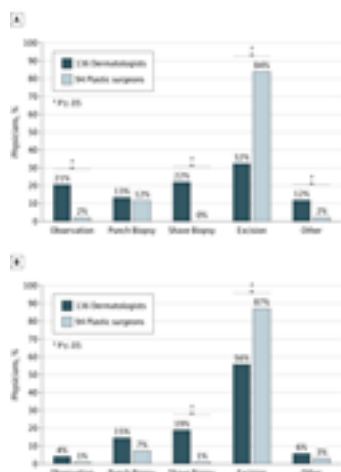
RESULTS

In the scenario of a 7-year-old with a clinically suspected SN, 21% of dermatologists chose to observe the lesion vs 2% of plastic surgeons ($P < .001$). Full-thickness removal by either punch biopsy or excision was chosen by 45% of dermatologists and 96% of plastic surgeons ($P < .001$). Nearly a quarter of dermatologists (22%) chose shave biopsy compared with no plastic surgeons ($P < .001$). When the patient's age was raised in the scenario to 18 years, only 4% of dermatologists and 1% of plastic surgeons chose observation ([Figure 1](#)).

Figure 1.

Management of Clinically Suspected Spitz Nevus

Spitz nevus in a 7-year-old patient (A) and in an 18-year-old patient (B). "Other" includes physicians who would base management on clinical factors, such as site and size or the lesion and family and patient anxiety about the lesion.^a $P \leq .05$.



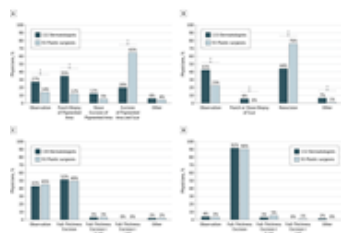
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In the scenario of clinical recurrence after biopsy showing an SN with typical histologic features, 27% of dermatologists and 12% of plastic surgeons chose observation. The scenario of a 10-year-old child with an SN with typical histologic characteristics and a positive margin yielded the largest proportion of both dermatologists and surgeons who would observe (43% of dermatologists and 23% of plastic surgeons) ($P = .002$). Still, most would reexcise the scar (44% of dermatologists and 76% of plastic surgeons) ($P < .001$) ([Figure 2](#)).

Figure 2.

Further Treatment of Clinical Recurrence of Spitz Nevus

A, Spitz nevus with typical histologic characteristics. B, Spitz nevus with typical histologic characteristics and a positive margin. C, Atypical Spitz tumor with negative margins. D, An atypical Spitz tumor with a positive margin. LND indicates lymph node dissection; SLNB, sentinel lymph node biopsy.^a $P \leq .05$.



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When presented with a child with a biopsy result showing an AST with clear margins, nearly equal proportions of dermatologists and plastic surgeons would

observe as would reexcise ([Figure 2](#)). Only 3% of each group would recommend sentinel lymph node biopsy (SLNB) in addition to excision. In the scenario of a child with an AST with a positive margin, most physicians (92% of dermatologists and 90% of plastic surgeons) would reexcise ($P = .73$); 5% of plastic surgeons and 3% of dermatologists would recommend SLNB in addition to excision ([Figure 2](#)).

DISCUSSION

Because of the lack of large studies of SN and ASTs, no evidence-based treatment recommendations can be made. Most current sources recommend complete excision to facilitate complete histologic evaluation and reduce risk of recurrence.^{1,2} In actual clinical practice, though, dermatologists seem to consider age in their choice of management, as evidenced by the larger proportion who would observe an SN in a 7-year-old compared with an 18-year-old.

In our study, dermatologists were likely to prefer shave biopsy as opposed to punch biopsy of a suspected SN. In 2002 Murphy et al² found that 67% of SN diagnosed by shave biopsy had an involved margin, most commonly the deep margin, suggesting that full-thickness excision or punch biopsy may be preferable. That said, Kaye and Dehner³ reported a series of 30 patients with SNs with positive margins; although only 6 of the 30 were reexcised, none had recurred after mean follow-up of 5 years, suggesting that even if incompletely removed, SN have a low chance of recurrence.

The histopathologic diagnosis of “atypical Spitz nevus” has come into common use; 67% of respondents of our survey report having encountered the diagnosis on pathology reports. When presented with the scenario of an AST with negative margins, almost half of both the groups chose observation, whereas in the scenario of positive margins, more than 90% chose full-thickness excision. The use of SLNB in patients with SNs with atypical histologic characteristics remains controversial, and a number of sources that either support⁴ or discourage this practice can be found.⁵ Our survey results suggest that very few SLNBs are being performed for ASTs in clinical practice.

These data demonstrate that many dermatologists are managing Spitz nevi in children differently than the few published guidelines that exist. A study examining the safety of observing Spitz nevi in pediatric patients would be helpful in either substantiating or disqualifying this practice.

ARTICLE INFORMATION

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Analysis and interpretation of data: Metzger, Kane.

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Administrative, technical, or material support: Kane.

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REFERENCES

- 1 Luo S, Sepehr A, Tsao H. Spitz nevi and other spitzoid lesions, part II: natural history and management. *J Am Acad Dermatol*. 2011;65(6):1087-1092.

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- 2 Murphy ME, Boyer JD, Stashower ME, Zitelli JA. The surgical management of Spitz nevi. *Dermatol Surg*. 2002;28(11):1065-1069.

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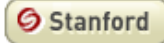
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- 3 Kaye VN, Dehner LP. Spindle and epithelioid cell nevus (Spitz nevus): natural history following biopsy. *Arch Dermatol*. 1990;126(12):1581-1583.

[PubMed](#) | [Link to Article](#)



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- 4 Urso C, Borgognoni L, Saieva C, et al. Sentinel lymph node biopsy in patients with “atypical Spitz tumors”: a report on 12 cases. *Hum Pathol*. 2006;37(7):816-823.

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- 5 Sepehr A, Chao E, Trefrey B, et al. Long-term outcome of Spitz-type melanocytic tumors. *Arch Dermatol*. 2011;147(10):1173-1179.

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