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Re: “Time to Reconsider the Role of Sentinel Lymph Node Biopsy in Melanoma”

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Title Page

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Conflict of Interest:

Faries: Advisory Board: Novartis, Pulse Bioscience, Castle Bioscience, Delcath Systems
Cochran: None
Thompson: Advisory Board: GlaxoSmithKline, Merck Sharpe Dohm, Bristol Myers Squibb, Provectus

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To the Editors:

Bigby et al question the value of sentinel lymph node (SLN) biopsy in melanoma, ascribing it no therapeutic value, and stating that it is "solely a staging procedure." [1] We believe that not only is their assertion incorrect, but that it also demonstrates a failure to appreciate the critical importance of accurate staging.

While there is clear evidence of a survival benefit from early nodal treatment in patients with intermediate-thickness melanomas[2], definitive proof of this advantage is not required to demonstrate a therapeutic benefit. In fact, eradicating regional disease, which is unquestionably achieved through surgical management, is remarkably therapeutic. Use of SLN biopsy allows this to be done in a minimally invasive way. All patients randomized in MSLT-II had regional node metastases. Had they been managed without SLN biopsy, virtually all would have developed clinically-apparent nodal disease and required complete dissection,[2] and during the period of observation, the extent of nodal involvement would have more than doubled.[3] In contrast, when managed by SLN biopsy with ultrasound follow-up, about three-quarters of patients are rendered free of all regional disease by SLN biopsy *alone* and never require dissection for control.[4]

Curiously, Bigby et al focus on defining the “strongest” prognostic variable, when extensive data from retrospective series, prospective registries and randomized clinical trials consistently demonstrate that accurate staging cannot be achieved without SLN biopsy. [2,5,6] The performance estimates for SLN biopsy that they present are not accurately calculated, as we have previously pointed out.[7] They describe the sensitivity and specificity of SLN biopsy relating to “10-year mortality”, but the figure they cite does not even contain SLN status, and determining sensitivity and specificity based on mortality is not a valid approach.

The two most recent editions of AJCC melanoma staging provide an opportunity for their proposed reappraisal of the impact of SLN biopsy. For the 7th edition, many Stage Ib or II patients did not undergo sentinel node biopsy.[8] The 8th edition used a contemporary cohort of >44,000 patients, and all tumors ≥T1b were staged with SLN biopsy.[5] Both editions included analysis of primary tumor thickness, ulceration and other covariates. Seventh edition 10-year survival rates for Stage IIA, IIB, and IIC were respectively 66%, 56%, and 39%, compared to 88%, 82% and 75% in the 8th edition. This is a *revolutionary* improvement in staging, which is all the more important in the era of effective medical treatment. Though not the sole determinant

of need for adjuvant therapy, SLN biopsy is a key requirement for identification of appropriate higher-risk patients.

In stark contrast to the assertions of Bigby et al regarding intransigence, practices have evolved substantially in light of research that we and many others have conducted. They might do well to consider how the factors they tabulate have led to their own difficulty accepting the mountains of data validating the central importance of SLN biopsy for appropriate-risk patients with melanoma.

References:

1. Bigby M, Zagarella S, Sladden M, Popescu, CM. Time to Reconsider the Role of Sentinel Lymph Node Biopsy in Melanoma. J Am Acad Dermatol, 2018
2. Morton DL, Thompson JF, Cochran AJ, Mozzillo N, Nieweg OE, Roses DF, et al: Final trial report of sentinel-node biopsy versus nodal observation in melanoma. N Engl J Med 370:599-609, 2014
3. Morton DL, Thompson JF, Cochran AJ, Mozzillo N, Elashoff R, Nieweg OE, et al: Sentinel-node biopsy or nodal observation in melanoma. N Engl J Med 355:1307-17, 2006
4. Faries MB, Thompson JF, Cochran AJ, Andtbacka RHI, Mozzillo N, Zager JS, et al: Completion Dissection or Observation for Sentinel-Node Metastasis in Melanoma. N Engl J Med 376:2211-2222, 2017
5. Gershenwald JE, Scolyer RA, Hess KR, Sondak VK, Long GV, Ross MI, et al: Melanoma staging: Evidence-based changes in the American Joint Committee on Cancer eighth edition cancer staging manual. CA Cancer J Clin 67:472-492, 2017
6. McMasters KM, Noyes RD, Reintgen DS, Goydos JS, Beitsch PD, Davidson BS, et al: Lessons learned from the Sunbelt Melanoma Trial. J Surg Oncol 86:212-23, 2004
7. Faries MB, Stern S, Thompson JF: More on Adjuvant Therapy in Resected Melanoma. N Engl J Med 378:1656-1657, 2018
8. Balch CM, Gershenwald JE, Soong SJ, Thompson JF, Atkins MB, Byrd DR, et al: Final version of 2009 AJCC melanoma staging and classification. J Clin Oncol 27:6199-206, 2009