separated by rings.[5] In mastocytoma, however, the contours of the aggregates are less defined, with some large medium-reflecting cells and no visible nucleus. Moreover, the nests of mastocytoma are separated not by acanthotic epidermis or by rings, but by rete ridges.

In conclusion, RCM is a noninvasive method for diagnosing mastocytoma in children. To our knowledge, this is the first report on RCM findings in mastocytoma. Because of the small sample size in our present analyses, large-scale studies are required in the future to confirm our findings.

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Importance of pathology review to complement clinical management of melanoma

To the Editor: The evaluation of melanocytic lesions is challenging and nuanced. Referral centers for melanoma often request the original biopsy to render a second opinion as part of a multidisciplinary tumor board. We sought to determine the interobserver agreement between pathologists in the diagnosis of melanoma and discuss the impact on patient management. We expected that the vast majority of cases would show agreement in the diagnosis. In the small percentage of cases where there was discordance in the diagnosis, we opened a longer discussion of potential management options with the patient, including seeking a third opinion. The study was approved by the institutional review boards at MedStar Georgetown University and the Inova Schar Cancer Institute.

We reviewed all available pathology reports with a diagnosis of melanoma referred to the Melanoma and Skin Oncology Center at the Washington Cancer Institute between July 2009 and October 2014 and the Inova Melanoma and Skin Cancer Center between May 2015 and May 2016. The lesions were staged according to the American Joint Committee on Cancer (AJCC), seventh edition, melanoma staging criteria. Discordance was defined as lack of agreement in diagnosis, clinical stage, or histopathologic parameter. Statistical analysis was performed with R (R Core Team, 2013). For categorical variables, the Cohen's kappa (κ) statistic was used to measure the agreement between the original dermatopathologist and the consultant rendering the second opinion (Table I).

In total, 777 patients were referred with a biopsy-confirmed diagnosis of melanoma or a borderline melanocytic lesion. Of these cases, 623 of 777 had both initial and second opinion pathology reports available for comparison. The second opinion led to a change in diagnosis or stage in 14% of cases (87/623). Among the melanoma cases, the lesion was upstaged to a higher AJCC stage in 46% of cases (40/87) and

Table I. Interobserver agreement in the reporting of histopathologic parameters of melanoma

Parameter	Discordance	Number of cases	Kappa	Level of agreement*
Clark level	Any changes in level, including II to III or II to II/III, and vice versa	351	0.57	Moderate
Ulceration	1 absent and 1 present	149	0.85	Almost perfect
Microsatellites	1 absent and 1 present	447	0.30	Fair
Tumor-infiltrating lymphocytes	1 absent and 1 present, or 1 absent and 1 brisk or nonbrisk	296	0.29	Fair
Regression	1 absent and 1 present	205	0.59	Moderate
Precursor	1 absent and 1 present	288	0.69	Substantial
Mitotic rate†	$\geq$1/mm^2 and 0/mm^2	430	0.79	Substantial

*For agreement level, 0-0.19 indicates poor; 0.2-0.39 indicates fair; 0.4-0.59 indicates moderate; 0.60-0.79 indicates substantial; 0.80-0.99 indicates almost perfect; and 1.0 indicates perfect.
†Mitotic rate kappa was evaluated in cases where mitotic rate was reported in square millimeters per American Joint Committee on Cancer guidelines.

Table II. Concordance and discordance in the AJCC 7 melanoma stage for 623 lesions, n (%)*

	First Opinion							
Second Opinion	DN	0	1A	1B	2A	2B	2C	Second opinion stage total
DN	2 (29)*	4 (5)	1 (0.7)	1 (0.5)	—	—	—	8
0	1 (14)	64 (88)	6 (4)	3 (1)	—	—	—	74
1A	2 (29)	4 (5)	119 (80)	12 (6)	1 (2)	—	—	138
1B	2 (29)	1 (1)	22 (15)	195 (90)	7 (11)	1 (2)	—	228
2A	—	—	—	5 (2)	48 (75)	3 (7)	—	56
2B	—	—	—	—	8 (13)	37 (90)	—	45
2C	—	—	—	—	—	—	16 (100)	16
First opinion stage total	7	73	148	216	64	41	16	

AJCC 7, American Joint Committee on Cancer, seventh edition; *DN*, dysplastic nevus.
*Percent concordance and discordance calculated as (second opinion stage)/(first opinion total). For example, 148 lesions were staged as 1A in the first opinion (first opinion total). Of those 1A melanomas, 22 lesions were staged as 1B in the second opinion. Therefore, the percent discordance is 15% (22/148). With rounding, values may not add to exactly 100%.

downgraded to a lower AJCC stage in 41% of cases (36/87). The lesion was upstaged from dysplastic nevus to melanoma in 5 cases and downstaged from melanoma to dysplastic nevus in 6 cases (Table II). In all cases of discordance, a third opinion was always offered, although never pursued. We also calculated the number of slides received from the outside lab to render a second opinion: 1 slide was received in 41% of cases.

This study agrees with previous studies evaluating interobserver agreement among pathologists in the histopathologic diagnosis of melanoma.[1-4] This evaluation is limited by the melanoma centers having an inherent bias toward more diagnostically challenging or higher-stage lesions. Ideally, all slides should be sent to allow for a comprehensive second opinion. On a practical level, at least 1 slide from the original cut/biopsy specimen and at least 1 deeper specimen and immunohistochemistry, if performed, should be sent.

There are significant clinical implications with a change in stage, which dictates the extent of treatment, such as whether or not a patient needs a sentinel lymph node biopsy.[5] The second opinion allows for a comprehensive assessment of each case. In the few situations where there is discordance, optimal care includes a discussion with the patient and the multidisciplinary team to individualize patient care.

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Second primary malignancies in blastic plasmacytoid dendritic cell neoplasm: A national database study

To the Editor: Blastic plasmacytoid dendritic cell neoplasm (BPDCN) is an aggressive cutaneous lymphoma.[1] Risk of second primary malignancies (SPMs) in leukemias/lymphomas with cutaneous involvement is a knowledge gap for dermatologists. We used the National Cancer Institute's Surveillance, Epidemiology, and End Results (SEER) database to determine SPM risk in patients with initial BPDCN and assess the results against its classification as a myeloid-derived malignancy.[2]

SEER compiles cancer incidence and survival data from 34.6% of the US population.[3] Initial BPDCN cases (1973-2016) were extracted via International Classification of Diseases for Oncology, Third Edition, histology code 9727/3 (blastic plasmacytoid dendritic cell neoplasm). Standardized incidence ratios (SIRs) and excess absolute risks (EARs) were computed for all SPMs relative to a control population matched by sex, race (white/unknown, black, other), age group (5-year interval), and calendar year (5-year interval). EAR was calculated per 10,000 individuals. *P* values of less than .05 were considered statistically significant.

We extracted 932 patients with BPDCN with a mean age of 32.06 years (±23.69) and follow-up of 125.37 months (±128.81). Of these, 43 patients (4.61%) developed SPMs, representing an increased risk compared to the control population (SIR, 1.43; 95% confidence interval [CI], 1.03-1.92; EAR, 13.57). Site-specific analysis is displayed in Table I. Compared to the control population, patients with BPDCN have significantly increased risk of acute myeloid leukemia (SIR, 27.68; 95% CI, 11.13-56.04; EAR, 7.18) and acute monocytic leukemia (SIR, 62.14; 95% CI, 1.57-346.25; EAR, 1.05). Additionally, these patients have an increased risk of thyroid SPMs (SIR, 10.17; 95% CI, 4.39-20.04; EAR, 7.68).

Percentage-wise, patients with initial BPDCN have a relatively low incidence of SPMs (4.61%). Nevertheless, patients with BPDCN still have a significant increase in SPMs overall, excluding nonmelanoma skin cancer, driven by thyroid and nonlymphocytic leukemia SPMs. Latency analysis showed risk of thyroid SPMs longer than 1 year from BPDCN diagnosis, arguing against an incidental/concurrent finding (Table II). We postulate this risk is due to treatment-related sequelae, such as chemotherapy and radiation. The increased risk of nonlymphocytic leukemia SPMs suggests a shared etiology; however, progression of BPDCN to a leukemic phase is also possible.

There is a notable lack of lymphoid-origin SPMs, which supports the current 2008 World Health Organization classification of BPDCN as a subtype of acute myeloid leukemias and related precursor neoplasms.[2] BPDCN had previously been considered a blastic natural killer cell lymphoma but was reclassified based on its plasmacytoid dendritic cell (pDC) origin; however, pDC development is a topic of ongoing research. Recently, Fernandes et al[4] demonstrated the dual origin of pDCs, with the