SHEDDING LIGHT ON THE DARKNESS

PIGMENTED LESIONS

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SHEDDING LIGHT ON THE DARKNESS

PIGMENTED LESIONS
AN INVASIVE MELANOMA WITH BRESLOW THICKNESS 0.55 MM SHOULD BE TREATED BY:

A. Observation
B. Wide local excision with 0.5-mm margins
C. Wide local excision with 1-cm margins
D. Wide local excision with 1-cm margins and referral to surgical oncology for consideration of sentinel lymph node biopsy
E. Wide local excision with 2-cm margins
FOLLOW-UP FOR PATIENTS WITH MELANOMA SHOULD:

A. Occur on an annual basis
B. Occur every six months
C. Occur every 3 months for the first year and then every 6 months thereafter for the next 4 years
D. Occur at the recommendation of the primary care physician
E. Occur in accordance with the wishes of the patient
MELANOMA IN SITU IS BEST MANAGED BY

A. Radiation therapy
B. Wide local excision with 3-mm margins
C. Wide local excision with 5-mm margins
D. Wide local excision with 10-mm margins
IN THE CURRENT AJCC PATHOLOGIC STAGING OF MELANOMA, BRESLOW DEPTH IS MEASURED TO:

A. 0.1 mm
B. 0.01 mm
C. 0.1 cm
D. 0.01 cm
IN THE CURRENT AJCC PATHOLOGIC STAGING OF MELANOMA, BRESLOW DEPTH IS MEASURED TO:

A. 0.1 mm
B. 0.01 mm
C. 0.1 cm
D. 0.01 cm
The New AJCC: 8th Edition and Beyond
A NON-ULCERATED MELANOMA, 0.7 MM WITH 2 MITOSES IS CLASSIFIED AS:

A. PT1a
B. PT1b
C. PT2a
D. PT2b
AGENDA

• The Problem: Pigmented Lesions
• Dysplastic Nevi
• Difficult patients with multiple clinically atypical moles
• Melanoma (Who gets melanoma? Who dies of melanoma?)
• The new American Joint Committee on Cancer Criteria (8th ed.)
• What to do about clinically atypical nevi (dysplastic nevi)?
AI better than dermatologists at detecting skin cancer, study finds

For the first time, new research suggests artificial intelligence may be better than highly-trained humans at detecting skin cancer. A study conducted by an international team of researchers pitted experienced dermatologists against a machine learning system, known as a deep learning convolutional neural network or CNN, to see which was more effective at detecting malignant melanomas.
Melanocytic Lesions

THE GOOD
THE BAD
AND THE UGLY
THE GOOD
The Bad
THIS LESION IS BEST MANAGED BY:

A. Shave biopsy
B. 4-mm punch biopsy
C. Four scouting biopsies of the most worrisome areas
D. Excisional biopsy
This lesion is best managed by:
The Ugly
APPROPRIATE MANAGEMENT FOR THE PRIOR PATIENTS WOULD INCLUDE:

A. A surveillance biopsy at routine intervals to ensure no transformation

B. Close clinical follow-up with digital photography

C. Multiple biopsies of the most clinically atypical moles

D. Ask the patient to identify his/her most concerning mole and biopsy that one
THE PROBLEM OF THE ATYPICAL MOLE
A Survey Analysis on the Management of Moderately Dysplastic Nevi Among Academic Dermatologists Across the United States

Kristen M. Tessiatore, MS, BS, Hyunji Choi, MD, Ambuj Kumar, MD, MPH, Nishit S. Patel, MD, FAAD

PII: S0190-9622(18)30820-X
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Reference: YMJD 12538

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WHO GETS MELANOMA?

Fitzpatrick Skin Types
WHAT CAUSES MELANOMA?

• UV Radiation
• Indoor tanning
• Genetics
Viagra Melanoma Lawsuits

Viagra has been linked to nearly a doubling of melanoma, a deadly form of skin cancer, in men who used the erectile dysfunction medication, according to a recent study.

If you or a loved one suffered melanoma after using Viagra, you should contact a Viagra attorney for a free and confidential review of a potential Viagra lawsuit.

Kline & Specter, P.C., with more than 30 lawyers, several of whom are also highly skilled medical doctors, has the experience and expertise to litigate pharmaceutical injury cases.

The firm was a key player in the $4.95 billion Vioxx settlement and has won large settlements in lawsuits involving medications.

Nearly 10,000 people die each year of melanoma, with some 76,000 new cases diagnosed annually. Two-thirds of those who die are men.

The Viagra study, published in the Journal of the American Medical Association Internal Medicine, found that men who took Viagra were 54 percent more likely to develop melanoma. The study, whose subjects included 26,000 men with an average age of 65, showed an increase in melanoma among Viagra users even when the findings were adjusted to take into account other variables, such as family history of skin cancer and exposure to UV rays.

One author of the study, Dr. Abrae Qureshi, chairman of the dermatology department at Brown University...

Li WQ¹, Qureshi AA², Robinson KC³, Han J⁴.

Author information
WHAT CAUSES MELANOMA?

• UV Radiation
• Indoor tanning
FINAL DIAGNOSIS:

**PART A. SKIN, RIGHT MID BACK:**
MELANOMA, 0.87 MM AT LEAST. SEE ALL COMMENTS.

**COMMENT:** MELANOMA, 0.87 MM AT LEAST.
ULCERATION: NOT PRESENT.
MITOSES: NOT IDENTIFIED.
REGRESSION: NOT IDENTIFIED.
TUMOR-INfiltrATING LYMPHOCYTES: PRESENT, NON-BRISK.
LYMPHOVASCULAR INVASION: NOT IDENTIFIED.
PATHOLOGIC STAGE: PT1A AT LEAST.

**PART B. SKIN, LEFT UPPER ABDOMEN:**
MELANOMA, 0.63 MM AT LEAST. SEE ALL COMMENTS.

**COMMENT:** MELANOMA, 0.63 MM AT LEAST.
ULCERATION: NOT PRESENT.
MITOSES: NOT IDENTIFIED.
REGRESSION: NOT IDENTIFIED.
TUMOR-INfiltrATING LYMPHOCYTES: PRESENT, BRISK.
LYMPHOVASCULAR INVASION: NOT IDENTIFIED.
PATHOLOGIC STAGE: PT1A AT LEAST.

MICROSCOPIC DESCRIPTION:

**Part A. Right mid back:**
This is a broad compound melanocytic proliferation characterized by highly atypical melanocytes forming nests, clusters and single units at the dermal-epidermal junction and into the dermis. Consumption of the epidermis is noted in foc.i. There is a dense fibroplastic stroma surrounding the atypical melanocytes within the dermis. Some of the melanocytes demonstrate pleomorphic and hyperchromatic nuclei. Mitoses are not identified, but pagetoid array of melanocytes within the epidermis is observed in abundance. Nests of cells are seen scattered in the dermis as well as individual cells, and there is no maturation with depth. Vascular proliferation and tumor infiltrating lymphocytes are also noted.

**Part B. Left upper abdomen:**
Sections show skin with a compound proliferation of melanocytes of marked cytological atypia in both the dermal and epidermal components. The cells in the epidermis are present in confluent growth and in pagetoid array. Some of the cells demonstrate severe cytological atypia, and in foc.i, there is consumption of the epidermis. The dermal component shows cells devoid of maturation with descent. There is admixed lymphocytic inflammation, heavy in foc.i., vascular ectasia, and mild fibrosis. The melanocytes extend to the base of the biopsy specimen. Mitoses are not identified.

**COMMENT(S):**

While a diagnosis of two primary melanomas simultaneously in a patient (especially of the young age) is highly unusual, the features of both of these specimens indistinguishably equate with melanoma. Unfortunately, the invasion and atypical melanocytes in these specimens are present at the deep margin; and therefore, an exact depth and staging are impossible in these sections. To be sure, the depth of these melanomas is deeper than the Breslow depth noted above. The imperative treatment of wide local excision at the site may also provide a more accurate depth measurement.

For these particular melanomas, additional prognostic information may be sought using genetic expression profiling through Castle Biosciences, https://www.castlesciences.com/

Please feel free to contact me to discuss if I may be of further assistance. 617-833-9895.

To better characterize these melanocytic processes, Melan-A immunohistochemical studies, along with appropriately reactive controls, and multiple level step sections were performed, and the above diagnoses and findings are confirmed.

**Specimen Type:** Skin  **Specimen Adequacy:** Adequate

ANNA PATH, Inc.
6831 Tekla Drive Suite A Bakersfield, CA 93307
Phone: 310-302-6100  Fax: 310-302-6200
CLIA #21D1057011  www.annapath.com
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MICROSCOPIC DESCRIPTION:
Part A. Right mid back:
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COMMENT(S):
While a diagnosis of two primary melanomas simultaneously in a patient (especially of this young age) is highly unusual, the features of both of these specimens indubitably equate with melanoma. Unfortunately, the invasive and atypical melanocytes in these specimens are present at the deep margin, and therefore, an exact depth and staging are impossible in these sections. To be sure, the depth of these melanomas is deeper than the Breslow depths noted above. The imperative treatment of wide local excision at the site may also provide a more accurate depth measurement.

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WHAT CAUSES MELANOMA?

• UV Radiation

• Indoor tanning
INDOOR TANNING

- International Agency for Research on Cancer

- “Highest Cancer Risk Category”—CARCINOGENIC TO HUMANS

- Sunburns, especially in childhood or teen years
INDOOR TANNING

• Decrease in indoor tanning use among high school girls from 2009-2013

• Ongoing legislation in many states

• At least 42 states have new or strengthened indoor tanning laws for minors
RISK FACTORS FOR MELANOMA
(MELANOMA PREVENTION)

• Genetics
• Family history of melanoma
• Lack of coffee consumption
• Intermittent intense UV Exposure
• Many atypical moles
• Prior melanoma
RISK FACTORS FOR MELANOMA
(MELANOMA PREVENTION)

• Genetics
• Family history of melanoma
• Lack of coffee consumption
• Intermittent intense UV Exposure
• Many atypical moles
Original Article

Association of clinicopathological features of melanoma with total naevus count and a history of dysplastic naevi: a cross-sectional retrospective study within an academic centre

RISK FACTORS FOR MELANOMA (MELANOMA PREVENTION)

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8th Edition Implementation

January 1, 2018 is the new implementation date of the AJCC 8th Edition for cancer data collection.

- Project Updates
Topic Alerts

Here is the latest published content for the Topic Alerts you have subscribed to.

Saturday, June 30, 2018

New Guidelines Increase Melanoma Staging Reproducibility
HealthDay, Jun 29, 2018
New Guidelines Increase Melanoma Staging Reproducibility and Concordance

(HealthDay News) -- Greater reproducibility and higher concordance are seen for melanoma staging with the American Joint Committee on Cancer (AJCC) classification of cancer staging, the AJCC Cancer Staging Manual, 8th edition (AJCC 8), which includes revisions to definitions of T1a versus T1b or greater, according to a study published online May 18 in JAMA Network Open.

Joann G. Elmore, M.D., M.P.H., from the University of California, Los Angeles, and colleagues compared AJCC 8 with the AJCC Cancer Staging Manual, 7th edition (AJCC 7) in a diagnostic study. A total of 187 pathologists interpreting melanocytic skin lesions completed 4,342 independent case interpretations of 116 invasive melanoma cases.

The researchers found that for T1a diagnoses, participating pathologists' concordance with the consensus reference diagnosis increased from 44 percent with AJCC 7 criteria to 54 percent with AJCC 8 criteria. For cases of T1b or greater, the concordance increased from 72 to 78 percent. There was also an improvement in intraobserver reproducibility of diagnoses, increasing from 59 to 64 percent and from 74 to 77 percent for T1a and T1b or greater invasive melanoma cases, respectively.
AJCC CRITERIA FOR MELANOMA MANAGEMENT

• 8th Edition
• 1 January 2018

• Staging – T1 (7th edition, ≤ 1.0 mm)
  • T1a vs. T1b

• 8th edition:
  • T1a if < 0.8 mm
  • T1b if 0.8 – 1.0 mm and non-ulcerated
  • T1b if < 0.8 mm and ulcerated
Primary Tumor Mitotic Rate

- Mitotic rate no longer used as a T-category criterion in the 8th Edition

- Mitotic rate removed as a staging criterion for T1 tumors in the 8th Edition because sub stratifying T1 tumors using a 0.8mm cut point showed stronger associations with outcome than those obtained utilizing presence or absence of mitosis (as in the 7th Edition).

- Mitotic rate remains a major determinant of prognosis across its dynamic range in tumors of all thickness categories

- Mitotic rate should be assessed and recorded in all primary invasive melanomas

- Mitotic rate likely will be an important parameter for the future development of prognostic models that will provide personalized prediction of prognosis for individual patients
AJCC 7TH EDITION AND AJCC 8TH EDITION UPDATES

• Nodal Status

• Sentinel Lymph-Node(s) were Previously defined as
  • “Microscopic” if not found on clinical exam or imaging but found on SLNB
    • Now defined as “clinically occult”
  • “Macroscopic” found on clinical exam or imaging
    • Now defined as “clinically detected”

• Non-nodal regional disease
  • Microrosatellites, satellites, and in-transit cutaneous and/or subcutaneous metastases is more formally stratified by N category according to the number of tumor-involved lymph nodes.
  • Presence of microrosatellites, satellites, or in-transit metastases is now categorized as
    • N1c node-negative
    • N2c & One node+
    • N3c & Two nodes +
Stage IIIA if primary nonulcerated or IIIB if primary ulcerated

AJCC 7th Edition

FIGURE 31.15. N1a is defined as clinically occult metastasis (micrometastasis) in one lymph node.

Stage IIIB if primary nonulcerated or IIIC if primary ulcerated

FIGURE 31.16. N2b is defined as clinically apparent metastases (macrometastases) in 2-3 regional nodes.
MELANOMA STAGING – N2C (IN TRANSIT OR SATELLITE METS)

Stage IIIB if primary nonulcerated or IIIC if primary ulcerated

Stage IIIC regardless of T-status

AJCC 7th Edition

8th Edition Changed base on number of lymph nodes
- N1c node-negative
- N2c & One node+
- N3c & Two or more nodes +
N category now comprises four stage groups rather than three (IIIA,B,C,D)
• Change to include T-category element (thickness and ulceration)
• N-category elements (number of tumor-involved nodes, satellites/inter-transits/microsatellites)
AN ULCERATED MELANOMA, 0.9 MM WITH 2 MITOSES WILL BE CLASSIFIED AS:

A. PT1a
B. PT1b
C. PT2a
D. PT2b
AN INVASIVE MELANOMA WITH BRESLOW THICKNESS 0.55 MM SHOULD BE TREATED BY:

A. Observation
B. Wide local excision with 0.5-mm margins
C. Wide local excision with 1-cm margins
D. Wide local excision with 1-cm margins and referral to surgical oncology for consideration of sentinel lymph node biopsy
E. Wide local excision with 2-cm margins
FOLLOW-UP FOR PATIENTS WITH MELANOMA SHOULD:

A. Occur on an annual basis
B. Occur every six months
C. Occur every 3 months for the first year and then every 6 months thereafter for the next 4 years
D. Occur at the recommendation of the primary care physician
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MELANOMA IN SITU IS BEST MANAGED BY

A. Radiation therapy
B. Wide local excision with 3-mm margins
C. Wide local excision with 5-mm margins
D. Wide local excision with 10-mm margins
NCCN GUIDELINES FOR MANAGEMENT OF EARLY AND THIN MELANOMA

BRESLOW DEPTH:

Melanoma in situ $\Rightarrow$ 0.5 – 1 cm margin

$<$ or $\leq$ 1 mm $\Rightarrow$ 1 cm margin

> 1 – 2 mm $\Rightarrow$ 1-2 cm margin

> 2 mm $\Rightarrow$ 2 cm margin