COLLEGE of AMERICAN PATHOLOGISTS

Clinching the Diagnosis

When the Biopsy Isn’t the Whole Story

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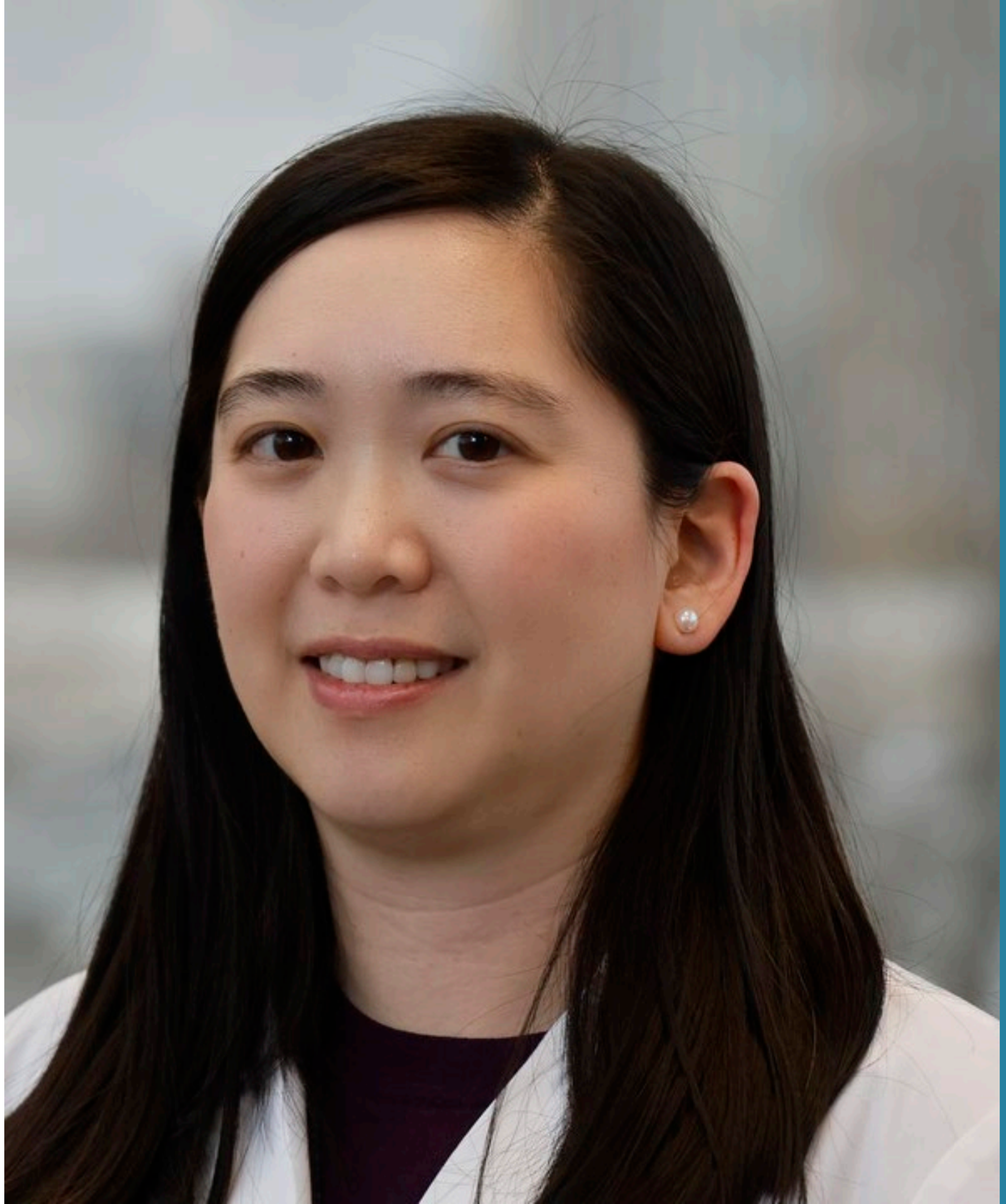
Shane D. B. Smith, MD, FCAP

- Member- New in Practice Committee
- Dermatopathologist at Anne Arundel Dermatology
- Special interest in acral melanoma, cutaneous lymphoma, alopecia and non-neoplastic pigmentary disorders
- Advocate for advancing dermatopathology through education and innovation
- Board-Certified Dermatopathologist and Pathologist in Anatomic and Clinical Pathology.

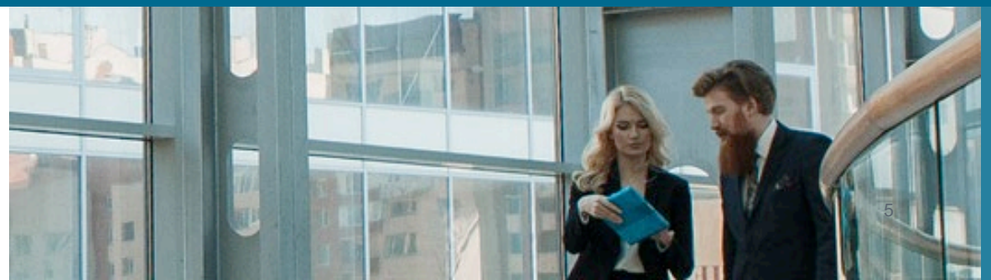
Catherine Chung, MD, FAAD

- Professor of Pathology and Dermatology at The Ohio State University Wexner Medical Center
- Current Dermatopathology Fellowship Program Director
- Completed residency in dermatology at the University of Rochester.
- Fellowship in dermatopathology at Penn State University Hershey Medical Center.
- Active member of the American Society of Dermatopathology (ASDP) and the American Academy of Dermatology (AAD).



Objectives

- Identify common diagnostic pitfalls when lesions are partially sampled or clinical history is incomplete/missing.
- Use clinical-pathologic correlation, particularly in cases where histologic findings are non-specific or potentially misleading.
- Communicate effectively with other clinicians to ensure the availability and appropriate use of relevant clinical information.
- Apply insights to real-world scenarios where definitive diagnoses may hinge on integrating multidisciplinary data.
- Manage "borderline" or ambiguous cases.



Diagnostic Pitfalls: Partial Sampling or Limited History

- What key clinical information do you consider essential for pathologists to have when reviewing a skin biopsy?
- Are there particular cases (e.g., alopecia, melanocytic lesions) where you feel clinical-pathologic correlation is most critical?

Diagnostic Pitfalls: Partial Sampling or Limited History

Examples:

- R/o lymphoma with a shave biopsy. The pathology report was descriptive and recommended repeat biopsy.
  - Repeat punch biopsy revealed lymphoma
- Punch biopsy revealed atypical lymphoid infiltrate with large cells
  - Clinical team revealed the patient has a longstanding history of mycosis fungoides.

Clin-path correlation is key in subtle or misleading cases

- Can you recall a case where the histopathology was subtle or non-specific, but the clinical history helped you arrive at the correct diagnosis?
- How do you manage patients when the pathology report offers a broad differential or provides a descriptive report? What clinical clues help you narrow the diagnosis?

Clin-path correlation is key in subtle or misleading cases

- Examples
- R/o eczema. Skin with perivascular inflammation and rare atypical cells predominantly in lymphovascular space.
  - After discussing with the clinical team, the patient had a history of lung cancer now presenting with an unusual rash.

Clin-path correlation is key in subtle or misleading cases

- Example
- R/O BP. Vacuolar interface dermatitis with subepidermal clefting.
  - Per the clinical team the patient has a history of cancer and is currently on immunotherapy.
  - I favored bullous drug/reaction secondary to therapy.

Engage other clinicians to obtain and apply pertinent clinical data

- What is your preferred method of communication when a pathologist has questions or needs clarification—EMR note, phone call, email, tumor board?
- What barriers have you experienced (or observed) that prevent effective communication between dermatologists and pathologists?

Engage other clinicians to obtain and apply pertinent clinical data

- Example
  - Mass on the toe of a young patient. R/o malignancy
    - After a detailed talk with the surgeon, I was able to learn more about the patient:
      - New lesion, attached to the tendon sheath without any bony erosion. DDx included giant cell tumor tumor of tendon sheath.
      - The constellation of findings lead me to favor fibroma of tendon sheath.

Apply insights in cases where diagnosis relies on multidisciplinary data

- Can you share an example where a discussion with a pathologist directly influenced your patient management plan?
- Do you participate in multidisciplinary conferences or tumor boards? If so, what has been most valuable about them?

Apply insights in cases where diagnosis relies on multidisciplinary data

- Example
  - R/o SCC on the face of an older patient. Pathology revealed carcinoma with neuroendocrine features.
  - At tumor board, per clinical team there was no history of breast cancer, no mass on physical examination and radiology failed to identify a lesion in the breast.
  - We favored primary cutaneous adnexal carcinoma with neuroendocrine differentiation (such as endocrine mucin-producing sweat gland carcinoma).

Managing uncertainty: thoughtful approaches to borderline pathology

- When pathology reports use terms like “borderline,” “atypical,” or “cannot rule out,” how do you interpret and manage patients?
- How comfortable are you with watchful waiting or re-biopsy in cases where histopathology is non-specific?
- How do you explain diagnostic uncertainty to patients when the pathology report doesn’t give a definitive answer?

Managing uncertainty: thoughtful approaches to borderline pathology

- Examples
  - Atypical squamous proliferation, transected at the base. Squamous cell carcinoma is not completely ruled out.
  - Hypertrophic actinic keratosis, transected at the base. Squamous cell carcinoma is not completely ruled out.
  - Atypical compound melanocytic proliferation.

Summary

- Recognize pitfalls in limited sampling or missing clinical history
- Correlate clinical and pathologic data in nonspecific cases
- Communicate with clinicians to ensure key clinical info is used
- Utilize a multidisciplinary approach in complex or uncertain cases
- Manage borderline or ambiguous cases with sound judgment

Thank you

Special thanks to Dr. Chung and NIPC team.

Additional Resources

New in Practice Webpage

- https://www.cap.org/member-resources/new-in-practice

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