Challenges with Acral Pigmented Lesions

Jennifer A. Stein MD, PhD
Associate Director, Pigmented Lesion Section
Ronald O. Perelman Department of Dermatology
NYU Langone Medical Center

S047 - Managing Patients with Melanoma or Other Melanocytic Neoplasms
Monday, 03/06/2017, 9:00 AM
Room W415B
9-9:20AM
Jennifer A. Stein, MD PhD
S047: Managing Patients with Melanoma
or Other Melanocytic Lesions

DISCLOSURES
I do not have any relevant relationships with industry.
Acral Melanoma

- Rare melanoma
- Worse prognosis
- Detected later, difficult to manage surgically
- Disproportionately affects patients with darker skin
Incidence is similar between races

Bradford et al Arch Dermatol 2009
Acral MM disproportionately affects skin of color

Bradford et al Arch Dermatol 2009
Worse Survival for Acral MM

Bradford et al Arch Dermatol 2009

Melanoma-specific survival, SEER 17 (1986-2005)
Why does acral MM have worse prognosis?

• Inherently more aggressive?
• Diagnosed later?
  • Poor awareness by patients?
  • Not detected by physicians?
• Suboptimal treatment?
Diagnosing acral melanocytic lesions

- Poor patient awareness
- Feet are not always examined on total body skin exams
- Acral pigmented lesions are common (36%)
- Moley patients are more likely to have acral nevi
- Vast majority of acral pigmented lesions are benign

Madankumar et al JAAD 2016
Dermoscopy

• Dermoscopy is a noninvasive technique
• Visualizes subsurface skin structures not seen by the naked eye to diagnose melanoma
• Increases diagnostic accuracy
• Reduces biopsies
• Acral dermoscopy very straightforward
Basic Acral Patterns
(Aquired Nevi)

Benign
• Parallel Furrow
• Lattice-like
• Fibrillar

Malignant
• Parallel Ridge
Beware: The Parallel Ridge Pattern

“Furrows are Fine, Ridges are Risky”
Acral Congenital Melanocytic Nevi

• Parallel furrow pattern

• Crista dotted (regular dots/globules on the ridges near the openings of the eccrine ducts)
Watch out for large lesions that don’t have a completely typical pattern.
Must be a **typical** benign pattern

- Braun et al Dermatology 2013 (IDS study)
- Predominantly Caucasian population
- Benign pattern can be seen in parts of melanomas
- Diameter >1 cm were more likely to be melanoma
- Evaluate an acral lesion for the presence of malignant patterns first
Not parallel ridge, but not a typical benign pattern either

1. Is it parallel ridge?
   - No

2. Is it furrow, lattice or fibrillar?
   - No

3. Measure: Is it 7mm or less?
   - No = Biopsy
Watch out for any non-typical features and big lesions

- Non-site-specific melanoma criteria (i.e. blue white veil) were detected in 83.9% of lesions, especially in ones without a PRP (95.1%)
- Anything > 7 mm must be TYPICAL
- Lesions greater than 1 cm are much more likely to be melanoma
- Acral melanomas in caucasian patients often have some component of a benign pattern – look out for any malignant features

Lallas et al Br J Dermatol 2015
Lallas et al Melanoma Research 2014, Braun et al Dermatology. 2013
Algorithm

1) Any PRP gets biopsied
2) Typical symmetric PFP, lattice, fibrillar is reassuring
3) Look out for:
   - asymmetry or irregular blotch
   - Size > 7 mm, and especially > 1 cm

Lallas et al Br J Dermatol epub July 25 2015
Braun et al Dermatology. 2013
Koga et al Arch Dermatol 2011
Partial Punch Biopsy

- Result comes back as atypical melanocytic lesion, insufficient to call melanoma
- Surgery – removed the nail, excision
- Still atypical melanocytic, suggestive of melanoma in situ
- Surgical oncology – excision with 5 mm margin
- Melanoma in situ
Acral Biopsy Issues

• Ideally biopsy the entire lesion
• Not always practical for large acral lesions
• May have to pick representative area
• Use dermoscopy
• Punch biopsy of a portion of a large lesion
• Go deep or go home!
Acral AIMP more likely to be MM

- Zhang et al Derm Surgery 2016
- Diagnostic Change From Atypical Intraepidermal Melanocytic Proliferation to Melanoma After Conventional Excision
- Acral location was an important risk factor for upgrade to MM from AIMP (OR 9.24, 95% CI 2.18, 39.24; \( p = .001 \))
Treating Acral Melanoma:

Surgery
Don’t Skimp on Margins
High Risk of Recurrence
Elevated Recurrence Rate in Acral MM

Gumaste et al JNCCN 2014
Acral MMIS are higher risk for subclinical spread

Shin et al JAAD (in press)
Loco-Regional Recurrence is Double in Acral MM vs Non-Acral MM

Gumaste et al JNCCN 2014
More Pronounced Difference in Recurrence in Thinner Tumors

Gumaste et al JNCCN 2014
Are margin guidelines for thinner acral tumors sufficient?

• Thinner tumors are excised with narrower margins
• Margin guidelines are not site-specific
• Are insufficient margins the source of higher recurrence rates?

NCCN Guidelines v 1.2017
Field Cells May Be Source of Recurrent Acral Melanoma

- Field Cells = cells surrounding the tumor that look histologically normal but contain genomic amplifications

- More work to be done
- Don’t skimp on margins
- Monitor patients for recurrence

Do we Need Wider Surgical Margins for Acral MM?

• Lee et al. J. Surg Oncology 2016
• Retrospective cohort study of patients with primary acral MM
• Multivariate analyses - 2 cm margin associated with a reduced rate of local recurrence (HR, 0.120; P-value = 0.023) and local and in-transit recurrence (HR, 0.187; P-value = 0.013) compared with a <2 cm margin
• Disease-free survival and melanoma-specific survival did not differ between the two groups
Advanced Acral Melanoma
Acral MM increased risk for SLN +

• Marek et al JAMA Derm 2016
• 781 SLNB patients (10 were acral)
• ALM significantly associated with SLN positivity (OR, 16.02; \( P = .004 \)), as did increased Clark level (OR, 3.04; \( P = .02 \)) and mitotic rate of 1 mm² or more (OR, 6.04; \( P = .01 \))
PD-1 inhibitors can work in acral melanoma

• Shoushtari et al Cancer 2016
• Retrospective, multicenter cohort of patients with advanced or unresectable mucosal or acral melanoma who received treatment with the anti-PD-1 agents nivolumab or pembrolizumab
• Acral response rate was 32%
• Published response rates in other subtypes are approximately 26% to 44%
• Refer advanced acral MM patients to oncology
Which is true about acral melanoma?

• A) Has a lower risk of sentinel lymph node involvement than other subtypes – HIGHER RISK
• B) Does not respond to PD-1 inhibitors – RESPONDS SIMILARLY TO OTHER SUBTYPES
• C) Is the most common subtype of melanoma in Asian / Pacific Islanders – MOST COMMON IN BLACKS
• D) Recurs less often than other subtypes – RECURS MORE OFTEN
• E) Does not always present with the parallel ridge pattern on dermoscopy - LOOK OUT FOR NON-TYPICAL BENIGN PATTERNS > 7 mm
Summary

• Don’t underestimate acral melanoma
• Use dermoscopy
• Beware the parallel ridge pattern or anything large that contains atypical features
• Margin control can be challenging → recurrence
  • Don’t skimp on the margin
  • Watch your patients carefully for recurrence
• Consider SLNB when appropriate
• Refer to oncology when advanced
June 8th and 9th, 2017

NYU Langone Medical Center, Farkas Auditorium
550 First Avenue, New York, NY 10016
http://dermatology.med.nyu.edu/events-conferences/advances-dermatology
Thank you

jas231@nyumc.org
212-263-5889