APPROACH TO IMPROVING DIAGNOSIS: INPATIENT DERMATOLOGY

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U001: Lessons in CPC

DISCLOSURES

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Approach to improving diagnosis: inpatient dermatology

- Diagnostic discordance in inpatient dermatology
- CPC for inpatient dermatology: tips and examples
- Inpatient teledermatology: tips and examples
Diagnostic discordance in inpatient dermatology

- Significant discordance between primary teams and dermatologists

- Multiple studies: 34-58 percent discordance in clinical diagnosis

- Demonstrates value of dermatologists in the inpatient setting

CPC for inpatient dermatology

- No correlation between likelihood of skin biopsy and:
  - Unspecified diagnosis by primary team
  - Impact of diagnostic discordance on management

- Discordance between Dermatology and CPC diagnosis: 15 percent

- Discordance between Pathology and CPC diagnosis: 25 percent

CPC for inpatient dermatology: Tips

• A request for biopsy = request for diagnostic assistance

• Consider formal CPC conference for inpatient consults
  • Particularly if pathologists are hospital-based

• When CPC diagnosis differs from histopathologic diagnosis (1/4), take the time to educate and explain to primary teams

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Clinical History

A 39 year old female with a clinical history of chronic myeloid leukemia, status post bone marrow transplant with skin rash, concern for graft versus host disease.

A. Skin, right upper extremity, punch biopsy:
Mild spongiosis and focal interface changes, see comment.
Multiple deeper levels were reviewed.

Comment: These histopathological findings are compatible with graft-versus-host disease (acute grade I/IV).
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CPC for inpatient dermatology: example

• Our differential diagnosis:
  • Type I (monoclonal) cryoglobulinemia
  • Antiphospholipid syndrome
  • Levamisole-induced vasculopathy

• Initial workup:
  • Serum cryoglobulins
  • Hepatitis C
  • Rheumatoid factor
  • Complement C4
  • Antiphospholipid antibody panel
  • Urine drug screen, ANCA
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  - Skin biopsy
CPC for inpatient dermatology: example

- Additional studies:
  - Immunofixation electrophoresis
  - Serum free light chains
  - Bone marrow biopsy
CPC for inpatient dermatology: example

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• Diagnosis:
  • Multiple myeloma
Inpatient teledermatology

• Response time and access

• Limit exposures during COVID-19

• Reduce travel time and preserve resources

Inpatient teledermatology

- Over half of institutions use inpatient teledermatology
  - Over 80 percent: staffing
  - Over 60 percent: triage

- Most dermatologists think telemedicine improves inpatient care
  - Almost all hospitalists would use teledermatology

- Discordant with primary team diagnosis in over 50 percent
  - Similar to in-person consultation versus primary team diagnosis

Inpatient teledermatology

• Complete diagnostic concordance: 53–67%
  • Partial diagnostic concordance: 85-92%

• Decision to biopsy concordance: 71%
  • Increased likelihood of biopsy with teledermatology
  • More likely to have definitive diagnosis in-person

• No association between photo quality and concordance

Inpatient teledermatology: Tips

• Consider the knowledge base of the photographer
  • Request multiple high-quality images

• Lower the threshold for biopsy

• Know when to convert to in-person consultation
  • Confidence
  • Need for definitive diagnosis
Inpatient teledermatology: Tips

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THANK YOU!

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