



A Rare Combination ... Of Nail Findings

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A 55-year-old female with history of chronic obstructive pulmonary disease was admitted for neutropenic fever. She was diagnosed with acute myeloid leukemia (AML) eight weeks prior to presentation and had a one-month complicated hospital course including induction chemotherapy, prolonged pancytopenia, and persistent severe infections. Her physical exam showed the nail findings above. The white bands did not fade with pressure. The patient had no other risk factors, such as Raynaud's disease or other autoimmune processes.

Discussion

Beau lines are transverse linear depressions in the nail plates.^{1,2} They were first described in 1846.¹ They are usually caused by any acute illness severe enough to disrupt normal nail growth, but also can be found in Raynaud's disease, pemphigus, and trauma. Mees' lines are transverse white bands on nails.^{1,2} They can occur in any acute severe illness, arsenic, or carbon monoxide poisoning, Hodgkin's disease, chemotherapy, heart failure, leprosy, and malaria.¹

Clubbing can be found in pulmonary diseases especially with hypoxemia, including chronic obstructive pulmonary disease, malignancy, inflammatory bowel diseases, cirrhosis, congenital heart disease, endocarditis, and atrioventricular malformations.¹ The combination of Beau's lines, Mees' lines, and clubbing is a rare finding. A literature search revealed no previously known

reported cases. It is not clear to us why the combination of the three findings is rare. It is most likely under-reported. With clubbing being more prevalent and the advances in chemotherapy (more potent agents, more frequently used, and the increased incidence of cancer in general), these findings probably will become more frequent.

References

- ¹ Fawcett RS, Linford S, Stulberg DL. Nail abnormalities: Clues to systemic disease. *Am Fam Physician* 2004; 69(6):1417-1424. PMID: 15053406.
- ² Huang TC, Chao TY. Mees lines and Beau lines after chemotherapy. *CMAJ* 2010; 182(3):E149. PMID: 20008502.

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