

## Yellow Nail Syndrome: A Mystery, Partially Solved

Stanley G. Rockson MD

**F**IRST DESCRIBED IN 1964,<sup>1</sup> yellow nail syndrome is a clinical presentation that continues to elude clinicians and lymphatic investigators. The condition has a perplexing relationship to respiratory disease<sup>2</sup> and is a cause of both morbidity and accelerated mortality.<sup>3</sup> The genetic substrate of this condition, at times familial<sup>5</sup> or congenital,<sup>5</sup> remains unresolved. Of interest to the readers of *Lymphatic Research and Biology* is the fact that yellow nail syndrome has an unquestioned relationship to the presentation of primary lymphedema, yet the question remains: Is lymphatic dysfunction responsible for all of the seemingly disparate components of the clinical presentation of this syndrome?

In the current issue of the journal, Cousins *et al.* have addressed this question in a case-control investigation of yellow nail syndrome. The investigators performed four-limb qualitative and quantitative lymphoscintigraphy in affected individuals and in healthy, age-matched controls. The results suggest that yellow nail syndrome is, indeed, associated with a generalized lymphatic phenotype: The presence of the syndrome correlates with both upper and lower limb lymphatic dysfunction confirmed by this imaging modality. Furthermore, quantitative analysis of tracer uptake confirms a significant reduction in the affected individuals.

Taken together, these findings strongly support the lymphatic substrate of this perplexing clinical presentation. The next mystery to solve is the nature of the lymphatic abnormality and its relationship to the extra-lymphatic manifestations of yellow nail syndrome.

### References

1. Samman PD, White WF. The “yellow nail” syndrome. *Br J Dermatol* 1964; 76:153–157.
2. Hiller E, Rosenow EC, Olsen AM. Pulmonary manifestations of the yellow nail syndrome. *Chest* 1972; 61:452–458.
3. Maldonado F, Tazelaar HD, Wang C-W, Ryu JH. Yellow nail syndrome. Analysis of 41 consecutive patients. *Chest* 2008; 134:375–381.
4. Lambert EM, Dziura J, Kauls L, Mercurio M, Antaya RJ. Yellow nail syndrome in three siblings: A randomized double-blind trial of topical vitamin E. *Pediatr Dermatol* 2006; 23:390–395.
5. Cecchini M, Doumit J, Kanigsberg N. Atypical presentation of congenital yellow nail syndrome in a 2-year-old female. *J Cutan Med Surg* 2013; 17:66–68.
6. Bull RH, Fenton DA, Mortimer PS. Lymphatic function in the yellow nail syndrome. *Br J Dermatol* 1996; 134:307–312.