SARCOIDOSIS VASCULITIS AND DIFFUSE LUNG DISEASES 2016; 33; 98-99

Treatment indications for pulmonary sarcoidosis

Jerome M. Reich
Thoracic Oncology Program, Earle A Chiles Research Institute, Portland, Oregon

SVLD re. Baughman RP, Lower EE. Features of sarcoidosis associated with chronic disease. Sarcoidosis Vasc Diffuse Lung Dis 2014; 31; 275-281.

In 1848, Ignaz Semmelweis observed that fatal puerperal sepsis in obstetrical wards managed by students at Vienna General Hospital was three-fold that in wards managed by midwives. Suspecting that material conveyed by the former (from post mortem examinations) to their patients might account for the difference, he insisted upon a regimen of chlorine hand washings. The obstetric mortality rate promptly dropped from 18 to 1 percent. His views were discredited by the medical community whose members were unwilling to acknowledge responsibility for causing this highly lethal disorder.

In 1986, Johnston reported his extensive experience with pulmonary sarcoidosis at the Chest Clinic and Dept. of Respiratory Medicine, University of Dundee (1). Of 159 persons, 81 (51%) were stage I. Prednisolone was restricted to persons with eye complications, hypercalcemia or progressive pulmonary disease. A total of four (2.5%) received prednisolone for progressive pulmonary disease, mean duration, 25-months. At the end of 20-years, 14 of 159 persons with stages I-III had minimal, and 4, moderate residual pulmonary fibrosis (none had significant respiratory disability); the remaining 141 resolved completely. Current treatment guidelines conform with Johnston's policy (2, 3).

In 2014, Baughman and Lower, based on their extensive experience at the Interstitial Lung Disease and Sarcoidosis Clinic, University of Cincinnati, reported on features of sarcoidosis associated with chronic disease, defined as continued requirement (based on their clinical outcome score) for corticosteroid therapy 5-years after initial diagnosis (4). Of 335 newly diagnosed patients seen over a three year period (2002-2005), 213 (64%) were evaluated five years after initial diagnosis. At initial evaluation, 60% of the 213 were stage 0-I; 7% were stage IV. Prednisone (in addition to other immunosuppressive agents) was prescribed for 168 (79%) of the 213 of whom 86% developed chronic disease. The odds ratio for developing chronic disease exceeded 6 for each of the immunosuppressive agents.

In 2015, had Dr. Semmelweiss been reincarnated as a practicing pulmonologist, he might have concluded, after weighing the contrasting outcomes in these two settings, that the latter furnished the most forceful conceivable evidence that protracted prednisone therapy impaired resolution. He might have expressed surprise at the indication for intervention inasmuch as: 1) stage I lacks a (potential) prefibrotic pulmonary component and is almost invariably self-limited; 2) treatment was given for persons with non-progressive pulmonary shadowing that failed to improve within three months; and 3) these are non-indications according to cur-

Received: 16 January 2015
Accepted after revision: 29 September 2015
Correspondence: Jerome M. Reich
7400 SW Barnes Rd. A242
Portland, OR 97225 -7007
Tel. 1 503 292 6027
Fax 1 503 296 4878
E-mail: Reichje@isp.com

rent guidelines (2, 3). As a scientist, he might have objected to employing the choice of treatment as a marker of sarcoidosis chronicity inasmuch as the treatment is known to affect the outcome, i.e., it is something akin to a tautology. He might have added a plausible biological mechanism for the outcome differential: that the systemic granulomas characterizing sarcoidosis appear to be a default to a more primitive and less efficient immunological response consequent to an impaired cellular immune response the suppression of which will predictably impair resolution (5).

References

1. Johnston RN. Pulmonary sarcoidosis after ten to twenty years. Scott Med J 1986; 31: 72-78.
2. Wells AU, Hirani N. Interstitial lung disease guideline: the British Thoracic Society in collaboration with the Thoracic Society of Australia and New Zealand and the Irish Thoracic Society. Thorax 2008; 63 (Suppl. V): V1e58.
3. Hunninghake GW, Costabel U, Ando M, et al. The joint statement of the American Thoracic Society (ATS), the European Respiratory Society (ERS) and the World Asociation of Sarcoidosis and Other Granulomatous Disorders (WASOG). Am J Respir Crit Care Med 1999; 160: 736e55.
4. Baughman RP, Lower EE. Features of sarcoidosis associated with chronic disease. Sarcoidosis Vasc Diffuse Lung Dis 2014; 31: 275-281.
5. Reich JM. On the nature of sarcoidosis. Eur J Intern Med 2012; 23 (2): 105-109. 10.1016/j.ejim.2011.09.011.