In defense of Lady Windermere Syndrome

The eponym, Lady Windermere Syndrome (LWS), designates a disorder, exclusive to older women who are free of a predisposing lung disorder, caused by Mycobacterium avium-intracellulare and characterized by disease limited to the lingula and/or the middle lobe of the right lung. Both its pathogenesis and eponym are disputed.

Essential definitions: Mycobacterium avium-intracellulare is a congeries of environmental, free-living, non-contagious bacteria of low virulence, found in soil and water (including many municipal water supplies). They are related to the causative organism of tuberculosis (M. tuberculosis). They infrequently cause lung disease in persons with a predisposing lung disorder such as old tuberculosis, bronchiectasis, or chronic bronchitis. Retention of (water-containing) secretions is a shared feature of each. The lingula and middle lobe are regions of the lung located near the base. They are served by long, narrow, and dependent bronchi (airways), and are therefore more dependent on cough than other regions to clear secretions. Lady Windermere is the title character in Oscar Wilde's Victorian play, Lady Windermere's Fan.

Three pathogenetic means have been advanced to account for the distinguishing features of the syndrome: 1) a predisposing connective tissue disorder (CTD) that conveys susceptibility to these agents; 2) a variant of the sodium transport mechanism (CFTR) genes involved in the genesis of cystic fibrosis; 3) habitual cough suppression.

A connective tissue disorder has been inferred based on several observations: the affected individuals are often tall and slender; they frequently have mild chest deformities; and a percent have an incompetent heart valve. In opposition: no direct evidence of a CTD has been advanced; a CTD would be expected to become evident early in life; CTD would not account for selective involvement of just two regions of the lung; a genetic disorder that affects only females implies sex linkage, and sex-linked genetic disorders, e.g., hemophilia, exclusively affect males.

A causative CFTR genetic variant is implausible. While there are CFTR gene variants associated with the syndrome, none has been clearly associated with the propensity to develop chronic bronchitis or bronchiectasis. Moreover, Windermere subjects do not exhibit clinical features of cystic fibrosis e.g., elevated sweat chloride levels. Selective regional involvement, age at onset, and sex-linkage are additional reasons to reject this hypothesis.

Based solely on deduction, habitual cough suppression appears a plausible pathogenetic mechanism: Women are more fastidious than men ("Ladies don't spit!"); female children, less so than their mothers; the affected regions are particularly dependent on cough to clear retained secretions. Since publication of the seminal paper, several persons with LWS have been reported who acknowledged habitual cough suppression.

The eponym has been criticized on grounds that the character is fictitious and that she did not have

the syndrome. My intent was to use a literary device, a metaphor, to produce an image of fastidiousness, which I hoped the combination of her title, British ancestry and Victorian dialogue would convey. The acronym, LWS, is clearly preferable for its brevity to NBPPDNTMEFOG (Nodular Bronchiectasis Phenotype of Pulmonary Disease Due to Nontuberculous Mycobacteria in Elderly Females of Obscure Genesis); moreover, it accounts for both its pathogenesis and each of its distinctive features.

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