

Current surgical therapy for bronchiectasis.

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The ideal classification system for bronchiectasis continues to be debated. As an alternative to the present morphologic classification, a hemodynamic-based functional classification is proposed. This study examines the rationale for and outcome of surgery based on this classification in patients with unilateral or bilateral bronchiectasis. Between July 1987 and January 1997 the morphologic and hemodynamic features in 85 bronchiectatic patients were examined: 18 with bilateral bronchiectasis and 67 with unilateral disease. A policy of unilateral lung resection of the nonperfused bronchiectasis and preservation of the perfused type was adopted in all patients. The mean age at operation was 29.4 +/- 9.7 years (range 6-55 years) with a mean follow-up period of 45.2 +/- 21.0 months (range 2-120 months). Left-sided predominance of bronchiectasis was evident in this series both in frequency and severity. In those with unilateral disease, bronchiectasis was left-sided in 49 (73.1%) patients and right-sided in 18 (26.9%). The left lung was totally bronchiectatic in 11 (16.4%) patients and the right in 3 (4.4%). Moreover, among the patients with bilateral bronchiectasis, 14 of 18 (77.7%) patients had the left lung more severely involved. Based on the morphologic and hemodynamic features in the investigated patients, two types of bronchiectasis were recognized: a perfused type with intact pulmonary artery flow and a nonperfused type with absent pulmonary artery flow. Lobectomy was performed in 55 patients, basal segmentectomy and preservation of the apical segment in 16, and pneumonectomy in 14. There was no mortality in this series. Altogether 63 patients (74.1%) achieved excellent results, 19 (22.4%) scored good results, and 3 (3.5%) patients had not benefited from surgery at last follow-up. In the face of the general criticism of the traditional morphologic classification, the proposed classification not only predicts whether the involved lung will have a measure of respiratory function with regard to gas exchange but reflects the degree of severity of the disease process. Thus the question of which side to resect and which to preserve is defined more precisely. This classification was found to be logical, physiologically sound, and of proven benefit.

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