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Title: Bronchial wash/lavage and etiologic diagnosis on immunocompromised patients

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Body: Introduction: Bronchoscopy is important in the identification of bronchopulmonary infectious agents. This study aims to evaluate the diagnostic yield of the bronchial washing and lavage in immunosuppressed patients with suspected pneumonia. Methods: The authors reviewed the endoscopic examinations carried out in a Pulmonology department in the past two years. Only patients who had criteria for immunosuppression and clinical suspicion of pneumonia were selected. Results: 195 flexible bronchoscopies with bronchial wash were performed (64% also with bronchoalveolar lavage). Microbiological identification in bronchial wash was obtained in 63 patients, with a positivity rate of 32.2%, slightly higher than the one obtained with bronchoalveolar lavage (27.2%). However, the sensitivity for microbiological identification in the bronchial wash or in the bronchoalveolar lavage, was not significantly different ($p=0.332$). 96 microorganisms were identified in 80 patients with an average of 1.2 microorganisms/patient ($SD=0.403$). The most frequently identified was the methicillin-resistant *Staphylococcus aureus* (27.6%) and *Acinetobacter baumannii* (15.5%). 28% of the patients had a fungal infection, predominantly *Pneumocystis jiroveci* (36%). In the group of 60 transplanted patients, a positive result was obtained in 28. The sensitivity of the bronchial wash and bronchoalveolar lavage for microbiological identification proved to be similar ($p=0.251$). The same was true in the HIV positive group, with equal sensitivity for both techniques (37.5% $p=1.0$). Conclusion: This study reinforces the role of bronchoscopy in immunocompromised patients, which may be influenced by empirical antibiotic therapy early initiated.