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Assessment of bronchiectasis in adult HIV/AIDS patients

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Abstract

Background: Immunodeficiencies should be suspected in cases of primary identified bronchiectasis in adults. Moldova is among the countries with a continuous increase in the number of HIV-infected adults. Impaired immune system and chronic inflammation contribute to the progression of bronchiectasis in HIV patients. The aim of the study was to present the clinical, imaging, bacteriological peculiarities and outcomes in adult patients with bronchiectasis and HIV/AIDS infection.

Material and methods: This case series involved 11 patients with HIV/AIDS and bronchiectasis, selected from a prospective study conducted on 490 patients diagnosed with non-cystic fibrosis bronchiectasis in a tertiary care hospital, between 2015–2019. Clinical, microbiological and radiological data, associated comorbidities and severity scores were analysed. Statistical analysis was performed using the SPSS 23 program.

Results: The mean age was 39 years (range 25-65 years), with a male predominance (54%). A CD4 count <200 *cells/mm*^{3} was identified in 6 cases. The mReiff score (6.8±4.6) showed a significant correlation with Bhalla score (9.72±4.5), r=0.66 ($p<0.05$). BSI score (11.7±3) reflects better the severity of the disease, showing a significant correlation with the Bhalla imaging score (r=0.62, $p<0.05$). Assessing the impact of comorbidities (BACI index 5.4±4.3 and Charlson index 6.9±1.3), the BACI index better reflected the severity of the disease in this group of patients, demonstrating a strong correlation with BSI (r =0.62, $p<0.05$). Only 3 patients (27%) were over 1-year follow-up.

Conclusions: Bronchiectasis is one of the common pulmonary manifestations of HIV/AIDS infection, being responsible for a number of chronic respiratory symptoms and the risk of premature death.

Key words: bronchiectasis, HIV/AIDS, mReiff score, Bhalla score, Charlson index, BACI index.

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