

Assessment of bronchial obstruction in adolescents infected with human immunodeficiency virus

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Abstract

Introduction : In adults chronically infected with HIV, there is an increased prevalence of impaired respiratory function, with a greater occurrence of COPD (Chronic obstructive pulmonary disease) than in the uninfected population. In children, data from the literature show a higher prevalence of atopy. Additionally, adolescents treated since birth for HIV infection in utero often exhibit bronchial hyperreactivity or peripheral bronchial obstruction, indicating chronic local inflammation. This study aims to evaluate the value of early detection of peripheral obstruction in HIV-infected adolescents, initiating early treatment and preventing long-term respiratory function impairment in adulthood. **Methods :** This prospective monocentric study included patients aged 11 to 25. Participants underwent forced oscillometry, conventional respiratory functional exploration, and completed a respiratory quality of life questionnaire. The primary endpoint was the parameter R5Hz **Results :** 21 teenagers were included in our study. Regarding the primary endpoint, one patient out of 13 (7.6%) showed an increase in R5Hz. Three (23%) exhibited abnormal resistance exploration. Regardless, three patients met the criteria for bronchial hyperreactivity. Concerning the questionnaire, three patients, despite having no respiratory function impairment, reported a decreased quality of life associated with breathing. **Conclusion :** There is probably approximately 15% of children infected with HIV at birth in France experiencing chronic lung inflammation. More accurate detection through oscillometry would enable precise identification of these children and offer them targeted treatment. This approach could not only improve their quality of life but also help preventing progressive decline in respiratory function and the development of chronic bronchopathy in adulthood.

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