Hypersecretion bronchial asthma is a poorly characterized variant of asthmatic disease. Probably its pathogenesis is related with impaired innate immunity.

**OBJECTIVES**

1) Define the inflammatory phenotype of hypersecretory asthma; 2) quantify and compare the type of mucin present in induced sputum and the expression of TLR 2 and 4 between hypersecretory (H) and not hypersecretory (NH) asthmatic patients.

**METHOD**

We studied 43 asthmatic patients. All patients underwent on the same day: induced sputum (IS), spirometry, FENO, prick test, total IgE, CRP, fibrinogen and albumin in blood. In sputum was determined by ELISA the quantification and determination of the mucins (MUC2, MUC5AC, MUC5B, MUC1). The expression of TLRs 2 and 4 in peripheral blood was determined by fluorochrome conjugated monoclonal antibodies. The level of asthma control was determined by the ACT questionnaire and quality of life by MiniAQLQ.

**RESULTS**

19 H and 24 NH asthmatic patients were studied. Compared with the NH group, hypersecretory asthmatics patients were enrolled significantly; greater severity (p severe asthma 94.7% vs 29.2%; p = 0.000); increased use of high doses of IC (47.4% vs 20.8%; p = 0.047); a higher percentage of nasal polyposis associated (36.8% vs 8.3%; p = 0.022); poor control of asthma (poor control: 73.7% vs 8 3%; p = 0.000); a lower score in the MiniAQLQ (4.04 vs 1.95; p = 0.023); a higher number of emergency room visits in the previous year (rate per patient / year vs 3.6 1.5; p = 0.02); greater need for short courses of oral corticosteroids in the previous year (4.2 vs 0.75; p = 0.001); a higher proportion of non-allergic asthma: prick-test negative (68.4% vs 16.6%; p = 0.001) and total IgE in blood (113.4 (173) vs 448 (536) IU / ml; p = 0.007); a lower proportion of lymphocytes in the IS (0.7% (0.53) vs 1.1% (0.65); p = 0.030). No significant differences were observed between groups in expression of mucins in the IS and in the expression of TLRs in peripheral blood. In both groups of asthmatic patients an increased expression of MUC1 and 2 was observed.

**CONCLUSIONS**

Asthma with chronic bronchial hypersecretion courses with greater severity, poor control and quality of life as well as a nonallergic eosinophilic inflammatory phenotype. Within the mechanisms involving these differences do not appear to mucins and TLRs play an important role.