

P1110 Pulmonary aspergillosis in patients with cystic fibrosis in the Russian Federation

Yana Kozlova¹, Yuliya Borzova¹, Irina Suslova¹, Oleg Aak¹, Svetlana Ignateva¹, Tatyana Bogomolova¹, Tatyana Stepanenko², Aleksandr Orlov³, Nikolai Klimko*¹

¹ North-Western State Medical University n.a. I.I. Mechnikov, Russian Federation, ² Head of Department, City General Hospital №2, St. Petersburg, Russian Federation, ³ Head of Department, St. Olga's Children's City Hospital №4, Russian Federation

Background: Pulmonary aspergillosis is a serious complication in cystic fibrosis (CF) patients. According to different studies the incidence of ABPA in CF patients ranges from 2 to 15%. Publications on invasive aspergillosis (IA) and chronic pulmonary aspergillosis (CPA) in cystic fibrosis (CF) patients are limited. The aim of the study was to evaluate the incidence of Aspergillus diseases in cystic fibrosis patients.

Materials/methods: In 2014-2017 yy. in prospective study in different regions of Russia were included 190 patients with cystic fibrosis aged 1 to 37 years. Children – 130, adults – 60. All patients underwent allergy (skin tests with fungal allergens, total IgE level, specific IgE to fungal allergens) and mycology (microscopy and cultural investigations of respiratory biomaterials) testing. Chest computed tomography was performed according to the indications. The diagnosis of CPA was established with D.Denning et al 2016 criteria, IA – EORTC/MSG 2008, ABPA - Stevens et al 2003.

Results: The incidence of fungal sensitization in patients with cystic fibrosis was 57%, to Aspergillus spp. - 27%. The incidence of allergic bronchopulmonary aspergillosis was 5,7%, chronic lung aspergillosis – 4,2%, invasive aspergillosis developed in one patient (0,5%) during immunosuppressive therapy after liver transplantation.

Conclusions: The incidence of pulmonary aspergillosis in patients with cystic fibrosis in the Russian Federation was first determined (10.5%). Mycology testing is indicated for patients with cystic fibrosis for early treatment of different variants of pulmonary aspergillosis.

