203 Are cystic fibrosis patients actually resistant to *Mycobacterium tuberculosis*?

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Background: There is exist an opinion about a higher resistance of CF patients to *M. tuberculosis*.
However, a chronic pulmonary disease with damaged clearance, poor nutritional status, diabetes mellitus, frequent glucocorticosteroids usage are an obvious predisposing factors of TB infection in CF patients.
Objective: To demonstrate clinical significance and difficulties of TB infection diagnosis in CF patients.
Methods: Information about TB cases in CF patients in Russia and France. The results of the clinico-radiological, bacteriological investigations, data of skin tuberculin tests, *M. tuberculosis* sensitivity to antituberculous drugs.
Results: We have got information about 10 cases (7 in Russia and 3 in France) of pulmonary tuberculosis and cystic fibrosis combination. Due to the similarity of clinical and radiological picture in none of the patients the diagnosis was based on clinical symptoms. Bacteriologic diagnosis was the predominant creation. At the early stages tuberculosis was diagnosed only by scheduled microbiologic tests for *M. tuberculosis* in sputum on Loewenstein cultures. The peculiarity of tuberculosis in Russia was multiresistant *M. tuberculosis* strains identification.
Conclusion: Tuberculosis in CF patients in its active detection is not rare and presents a potentially serious complication.

204 Clinical relevance of *Exophiala dermatitidis* in cystic fibrosis: a case study

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Background: The impact of airways colonization by *Exophiala dermatitidis* (ED) on the clinical course of CF patients is unknown.
Methods: We conducted a retrospective case–control study among non lung-transplanted patients followed at our centre (mean number of cultures/2 y: 13). Index cases were defined as patients with one or more sputum cultures + for ED over a 2 years period (Group A). Each ED+ patient was carefully matched with a single ED– control, taking into account age, gender, genotype, *BCC* and *Ps. aeruginosa* status (Group B). The two groups were then compared at the end of the period in terms of FEV1, rate of FEV1 decline over the past 3 years, BMI (Z-score), IgG levels, *Aspergillus fumigatus* (Asp f) colonization, predominant bacterial pathogen abd treatment. Specific precipitating antibodies against ED and Asp f were also investigated.
Results: ED was isolated in 9 patients (5.8%). No significant difference of clinical status or previous treatment was found between Groups A and B. Restricting the analysis to the 6 patients chronically colonized by ED and their controls did not modify the conclusions.
In a single patient from group A, without ABPA, only fungi were isolated over the 2 years (ED: 14/20±Asp f: 9/20). A continuous use of voriconazole resulted in a dramatic and sustained decrease of her bronchorrhea.
Conclusion: A deleterious effect on the clinical course could not be demonstrated by this case-control study.

205 Voriconazole treatment in CF patients with ABPA and/or invasive aspergillosis

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Background: Allergic bronchopulmonary Aspergillosis (ABPA) is an complex hypersensitivity reaction that occurs when bronchi become colonized with Aspergillus. ABPA occurs in approximately 10% of the CF patients. The mainstay of treatment is oral corticosteroid therapy, but this may need to be continued for several months and is associated with significant adverse effects. Itraconazole in addition to glucocorticoids is of benefit to reduce steroid dosage.
There is increasing evidence for the efficacy of the antifungal voriconazole. We describe our experience of using voriconazole in children with CF.
Methods: We reviewed the files of CF patients treated with voriconazole in our centre over the last 26 months.
Results: Six patients (age 7 y, 11 m to 24 y, 10 m – median age 16 y, 9 m) received voriconazole as monotherapy for treatment of ABPA and/or invasive aspergillosis. In 2 patients voriconazole was started because of invasive aspergillosis secondary to steroid treatment for ABPA, in 4 patients because of severe side effects to previous ABPA treatment with corticoisteroids. Patients were treated for six months. All patients improved in pulmonary function and ABPA markers (eosinophilia, tot IgE, specific IgE). Up-to-date, after a follow-up of 2–20 months (median follow-up-period 6 months) after the end of treatment in 5 patients, 1 patient relapsed 4 months after treatment, 4 patients showed sustained improvement in pulmonary function and ABPA markers and 1 patient is still on voriconazole treatment.
Conclusion: Our results confirm previous reports. Voriconazole monotherapy appears to be an alternative treatment strategy when oral corticosteroids are not be suitable.

206 Methicillin resistant *Staphylococcus aureus* (MRSA) colonisation in cystic fibrosis patients

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Isolation of methicillin-resistant Stahpylococcus aureus has increased its incidence in cystic fibrosis units, although its prevalence varies amongst centers. The purpose of this study was to estimate prevalence of this pathogen in our unit and assess risk factors that could affect its emergence.
We reviewed microbiological cultures from the 105 patients in our Unit. Two age-matched controls (patients who had never been MRSA-positive) were selected for each case (colonised with MRSA). Shwachman clinical and Bradsfield chest X-ray scores, as well as best lung function from past year were collected.
Twelve (6 males) patients were colonised with MRSA, prevalence of 11.4%. Mean age was 28.4 years (SD 5.8). Nine cases had previous data of MRSA acquisition, 16 in the control group. Mean age at acquisition was 26.4 years (SD 5.5). No differences between MRSA group and controls was observed regarding the following variables: clinical scores, lung function tests, colonisation by other pathogens, hospitalisation rates or previous antibiotic therapy, whether it was oral, intravenous or inhaled. Significant difference was identified in X-ray scores, which were worse in the MRSA group: 15.7±3.71 vs 19.91±5.26 (CI 95% 0.3–8) $p < 0.03$. Prevalence of MRSA in our group is moderate. There were no paediatric cases. Poorer X-ray scores in the MRSA group could reflect more impact of pulmonary symptoms.