

10. FUNGAL INFECTIVE ENDOCARDITIS

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Introduction. Fungal endocarditis (FE) is considered much more dangerous due to specific etiology and predisposing factors. Although treatment is available, the comorbidities, pathogen resistance, and severe disease predisposal lead to higher mortality in patients with FE. These circumstances occurring less frequently creates an impediment in diagnosis and treatment [1,2].

Aim of study. This review aims to present particularities of Fungal Infective Endocarditis.

Methods and materials. The article is based on international publication data and on-line materials.

Results. FE is the most severe form of IE being usually diagnosed postmortem. Several clinical studies have identified *Candida* and *Aspergillus* as the most common pathogens involved in the disease. The highest frequency is attributed to the *Candida* species 50-80% of which *Candida albicans* lead with 30-40% of cases of FE, *Aspergillus* spp follows with 20-25%, *Aspergillus fumigatus* being the main pathogenic agent [1,2]. The risk factors that lead to the condition of FE are related to invasive intervention like valve prosthesis, intravenous drug use, central venous catheter, cardiovascular surgery, etc. Clinical manifestations of FE are common to all forms of IE and include fever, dyspnea, cough, changing or new heart murmur and embolic phenomena [1]. The diagnosis of FE is difficult due to the similarity of the clinical manifestations with IE but being much more severe to which is added the negative blood culture. This is why the FE frequently is misdiagnosed. Echocardiography detected the affected endocardium by the presence of vegetations, ring abscesses, newly developed dehiscences occurring on valve prostheses. About 81.4% of patients present vegetations as per retrospective clinical studies. According to the Duke's criteria the defined FE needs the presence of 2 major criteria or 1 major criterion and 3 minor criteria or 5 minor criteria. However, the diagnosis is most often defined postmortem [1]. Successful treatment of FE requires combined antifungal therapy with valve replacement surgery. At the present time voriconazole, amphotericin B, itraconazole, caspofungin are the most used antifungals and even so refractory fungal infection comes with pathogen resistance. FE death rates reach 41-72%, despite aggressive treatment [2].

Conclusion. FE develops more frequently in patients with predisposing cardiac factors and comorbidities, affecting predominantly the aortic valve, evolving with severe complications and high mortality. Early diagnosed, adequate therapy and emergency surgery facilities are having a favorable prognosis. Other members of the family have some necessary and relevant aspects in order to treat the problem.