DIAGNOSTIC APPROACHES IN INFECTIVE ENDOCARDITIS

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DIAGNOSTIC APPROACHES IN INFECTIVE ENDOCARDITIS (Abstract): Infective endocarditis is a true systemic infection and a life-threatening disease associated with high mortality. **Aim:** To evaluate the problems that occur during making the diagnosis of infective endocarditis, in order to highlight the need of other diagnostic prospects. **Material and methods:** Retrospective study using clinical, microbiological, and echocardiographic findings from 45 patients admitted to the Iasi Infectious Diseases Hospital in the interval January 2007 - January 2011. **Results:** A positive diagnosis of infective endocarditis was made based on Duke Criteria. Inflammatory syndrome revealed leukocytosis with neutrophilia in 42% of the patients. In 91% of the cases fever syndrome was present. Blood cultures were positive in almost 45% of the cases, and the identified etiologic agents were *Staphylococcus* spp., *Streptococcus* spp., *Achromobacter* spp., *Klebsiella* spp., *Enterococcus* spp., *E.coli.* In 95% of the patients, the echocardiographic appearance was a major criterion for diagnosis. Associated diseases were most often present with rebound on the course. Cardiac complications occurred despite treatment and re-evaluations. Ten percent of our cases required transfer to cardiology and cardiac surgery units. **Conclusions:** Microbiologic diagnosis was mainly based on cultured-dependent methods that often fail because of previous antibiotic therapy or the involvement of fastidious microorganism. In this case, advances in molecular diagnostics have yielded new tools (polymerase chain reaction - PCR techniques) to diagnose this disease. **Key words:** ENDOCARDITIS, DUKE CRITERIA, BLOOD CULTURE, ECHOCARDIOGRAPHY, PCR.

Infective endocarditis is a life threatening disease associated with high mortality, its sudden or insidious onset causing heart damages, or aggravates a preexisting one which as the disease progresses may affect other organs (1). Although the primary focus of the infection is confined to the endocardium, microbial shedding by continuous bacteremia and embolization of vegetation fragments makes infective endocarditis a true systemic infection. This particular form of systemic infection with unlimited development still has a great impact on the adult population, but not only (2).

While developments in cardiac imaging, therapeutics and surgical techniques have led to improved outcomes in individual patients, the overall incidence has remained relatively stable from the 1950’s through 2000, about 3.7 to 10 cases per 100,000 patient/year (3). The predisposing risk factors have changed over time with intravenous drug abuse, intravascular prosthe-