

# PARTICULAR ASPECTS OF INFECTIVE ENDOCARDITIS – CASE PRESENTATION

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**Keywords:** *infective endocarditis, staphylococcus haemolyticus, heart*

**Abstract:** *Infective endocarditis is a pathological entity with numerous problems of diagnosis and medical assistance. Positive blood cultures and echocardiography are indispensable elements in diagnosis and treatment. Transesophageal ultrasound allows accurate localization of lesions according to Carpentier segmentations. Transesophageal echocardiography should be used only in patients with prosthesis or when the transthoracic is inadequate technically or indicates the likelihood of endocarditis. In the case of intermediate and high probability, transthoracic ultrasound should be the procedure to diagnose.*

**Cuvinte cheie:** *endocardita infecțioasă, cord indemn, staphylococcus haemolyticus*

**Rezumat:** *Endocardita infecțioasă reprezintă o entitate patologică cu numeroase probleme de diagnostic și asistență medicală. Hemocultura și ecografia reprezintă elemente indispensabile în diagnostic și tratament. Ecografia transesofagiană permite localizarea exactă a leziunilor conform segmentației Carpentier. Ecocardiografia transesofagiană ar trebui folosită numai la pacienții protezați sau atunci când cea transtoracică este tehnic inadecvată sau indică probabilitatea de endocardită. În caz de probabilitate intermediară și înaltă, ecografia transtoracică ar trebui să fie procedura diagnostică.*

## CASE PRESENTATION

We present the case of a 59-year old patient with pathologic personal history of chronic hepatitis C and kidney tuberculosis who presented to the emergency room with fever (39 - 38,6<sup>0</sup> C) occurred at 2 days of discharge from another hospital, shivering, sweating, asthenia, fatigue, diffuse abdominal pain, chest pain, heart palpitations. The previous hospitalization was found a urinary infection with enterobacter and pharyngeal exudates with piocianic for which followed antibiotic treatment according to antibiotic culture.

The clinical examination at admission revealed general condition influenced, fever (37,8<sup>0</sup> C), pale skin, dry mucous, blood pressure 110/80 mmHg, pulse 92/min., belly supple, elastic, painless, liver and spleen in normal limits. Laboratory tests have highlighted the biological inflammatory syndrome (VSH – 70 mm/h; fibrinogen – 668 mg/dl; PCR 6 mg/l), leukopenia (Wbc – 1400/mm<sup>3</sup>), hipocroma anemia (Hemoglobin – 12.2 g/dl, hematocrit – 36.8%; erythrocytes-4530000/mm<sup>3</sup>; VEM – 81.4 fl; HEM – 27 g; CHEM – 33.1%), elevated liver tests (ASAT – 49.5 IU/L; ALAT – 75.8 IU/L), cholestasis syndrome (gamaGT – 206 IU/L; FAS – 398 IU/L), hypercholesterolemia (cholesterol – 217,9 mg/dl) and oral candidiasis. The next step was to made blood cultures which was positive with staphylococcus haemolyticus. Echocardiography shows the normal mitral valve, mitral regurgitation, intact interatrial and interventricular septum, normal contractions, tricuspid valves free without regurgitation and aortic valves in tricuspid sometimes gives the impression of something attached to noncoronary valve.

Transesophageal echocardiography confirm the diagnosis of endocarditis, which shows free cavities, normal kinetics of left and right ventricle, normal mitral, tricuspid and pulmonary valve, aortic valves in tricuspid without regurgitation

with two vegetations, one of these higher on intraaortic face. The ejection of the left ventricle and right are loose, interatrial and interventricular septums are intact, without regurgitation, concluding of endocarditis with vegetation on the internal aortic valve – figure no. 1.

**Figure no. 1. Transesophageal echocardiography – infective endocarditis with vegetation on aortic valve**



The initial treatment was III<sup>rd</sup> generation cephalosporin and quinolones and after the result of blood culture with Vancomycin 1 g every 12 hours, which was later replaced with Zyvoxid 1 bottle to 12 hours due to foot lingers. The hospitalization period for 2 weeks it has maintained fever then for one week without fever. After 3 weeks of antibiotic therapy the blood cultures was repeated and it was negative. The evolution was favorable for uncomplicated heart or extracardiac.

The epidemiological profile of infective endocarditis has changed substantially in the past few years, particularly in the industrialized countries. Known as a disease of young adults with valvular disease well defined previously (especially

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## CLINICAL ASPECTS

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rheumatism), endocarditis now affects increasingly more elderly patients often due to medical procedures performed in patients without the disease on known valvular or valvular prosthesis wearers. Traditionally, staphylococcal infective endocarditis on native valve is due to staphylococcus aureus, which is most often oxacilin sensitive, at least in community infective endocarditis. Instead, staphylococci infective endocarditis on valvular prosthesis is more commonly caused by staphylococci negative coaguloso with oxacilin resistant. In Western studies, the frequency of infective endocarditis with negative blood culture was relatively high during the 1970s, among the values of 2.5%. In recent times due to the development of microbiological techniques to establish a lower frequency of 15%.(1,2,3,4) Minimum 5% values reported in other studies was due by application the Von Reyn criteria which are stricter or selection mistake. At the same time, in developing countries, the frequency of infective endocarditis with negative blood culture remains high (50 to 60%).(5,6,7,8,9) Several etiologic factors explaining the negativity and the variability in the frequency of their negative blood culture in the course of infective endocarditis.(3,6) Knowledge of these factors is essential for a diagnosis and appropriate treatment.(10,11)

### Conclusions:

The clinical manifestations of infective endocarditis cannot be ignored yet. Infective endocarditis is an important issue that requires numerous pathology investigations and advanced therapies. Clinical manifestations of infective endocarditis are the source of the beginning of the diagnosis, follow-up evolution besides defining elements of thoracic and esophageal echocardiography.

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