

## 41. INFECTIVE ENDOCARDITIS COMPLICATED WITH SEPTIC PULMONARY EMBOLISM

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**Introduction.** Septic pulmonary embolism (SPE) is a very rare condition that presents with nonspecific signs: fever, cough, and hemoptysis. Depending on the embolic source, SPE can be classified as cardiac and extracardiac. A severe complication of infectious endocarditis (IE) is pulmonary artery embolization. Initial clinical features range from low fever and respiratory symptoms, including cough, haemoptysis, chest pain, purulent sputum and dyspnea. Most patients with SPE have similar manifestations of pneumonia.

**Aim of study.** Evaluation of the incidence of pulmonary embolic complications in infectious endocarditis with evidence of clinical and paraclinical features of these subjects and elucidating the relationship between the correct choice of treatment tactics and the optimal time with the survival rate of these patients.

**Methods and materials.** We identified 48 cases of IE, hospitalized in IMSP SCR “T. Mosneaga ” during the years 2010-2021. After examining the medical records and radiological images of these patients, 6 cases of SPE were identified.

**Results.** 6 subjects were included in this study. The study group included 5 men and 1 woman, with a mean age of 38.1 years (range, 33-63 years; mean  $35.1 \pm 15.2$  years). Two patients were <35 years old and 2 were > 50, 1 > 60 years old). Symptoms included fever, cough, sputum, haemoptysis, pleuritic chest pain and dyspnea. In 6 cases (100%) heart murmurs were present. Microbiological tests revealed potential etiological pathogens in 4 patients (66.6%). Two patients who suffered sudden death were diagnosed with SPE after morphopathological examination. Transthoracic echocardiography (ETT) was performed in all 6 patients and all had significant abnormalities. All patients took antibiotics at least 1 week before arriving at our hospital. All received parenteral antimicrobial therapy as their initial hospital treatment and all were prescribed at least 2 different types of antibiotics. Comparison of recent studies on SPE cases. In our study, the presentation of fever, cough, hemoptysis, and chest pain were the most common clinical manifestations of SPE, similar to other SPE studies. In most patients, a heart murmur was detected with a stethoscope. Skin lesions were also prevalent in our study group, these results are concordant with other studies. Typical radiographic features of SPE include irregular airspace lesions, multiple nodules and cavities, and all shadows are usually multiple and peripheral. In this study, we were able to identify the characteristics associated with pleural effusion and hilar and / or mediastinal lymphadenopathy. If the patient suffers from skin lesions and has typical manifestations of SPE, a diagnosis of cardiac SPE should be considered. Transthoracic echocardiography is the fundamental and most important method used to diagnose, manage and monitor cases of IE. All patients underwent hospital X-ray, the opacity characteristic of septic pneumonia was the most common radiological manifestation in our study. Successful treatment of IE and cardiac SPE depends on the eradication of microbes by antimicrobial drugs. Antibiotics are the main and most important form of therapy in all forms of septic SPE. Lung damage such as septic embolism or cavitation is one of the key indications for right EI surgery.

**Conclusion.** Cardiac SPE remains a diagnostic challenge for clinicians. Our study showed that pre-existing heart disease, medical manipulation and intravenous drug use are key factors for cardiac SPE. Although vegetation on the right side is the main source of cardiac SPE, this condition can also be caused by vegetation on the left side of the heart. Most patients had typical clinical manifestations and radiographic results, but were nonspecific. For suspected cases, blood culture, CT are important measures for early diagnosis and treatment. Vigorous early therapy, including treatment with appropriate antibiotics and timely cardiac surgery to eradicate the source of infection, is extremely important.