



**RESEARCH ARTICLE**

**WHEN INFECTIVE ENDOCARDITIS IS REVEALED BY ENDOPHTHALMITIS**

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**ABSTRACT**

The Infective endocarditis (IE) is a rare and serious condition due to its complications classically by hematogenous spread of septic emboli to different organs. Endogenous endophthalmitis is a rare and potentially blinding ocular infection of the innereye. that occurs in the blood. We report the case of a diabetic 50-year-old woman with endogenous endophthalmitis as the first clinical manifestation of native mitral valve infective endocarditis that rapidly progressed to death. Endophthalmitis is still a rare complication but can quickly compromise the functional and vital prognosis, requiring an extremely fast and strict management.

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**INTRODUCTION**

Infective endocarditis (IE) is a rare and serious condition due to its complications classically by hematogenous spread of septic emboli to different organs. Endogenous endophthalmitis is a rare and potentially blinding ocular infection of the innereye. that occurs in the blood. We report the case of a diabetic 50-year-old woman with endogenous endophthalmitis as the first clinical manifestation of native mitral valve infective endocarditis that rapidly progressed to death.

**Observation:** We report the case of a 50 years old woman, with type 2 diabetes under metformin for five years, admitted to emergency for management of unilateral endogenous endophthalmitis suspected in front of a decrease in sharp visual acuity limited to a light perception on one eye painful red, corneal edema, hypopyon in the anterior chamber and hypertonia, evolving in a febrile context despite widespread local and oral antibiotic treatment. Somatic examination found a systolic murmur of mitral insufficiency with right-sided Hemiparesis. Transthoracic echography (TTE) revealed a loose mitral stenosis with moderate mitral insufficiency and a freely mobile mass in the left atrium, rounded 23 mm long axis, extended to the small mitral valve (Figures 1, 2).

The blood test results showed a very disturbed inflammatory syndrome made of leukocytosis, High C-reactive protein and abnormal erythrocyte sedimentation. Blood cultures returned positive to streptococcus. An extensional assessment of the emboligenic disease showed also ischemic Posterior Circulation Stroke (Figure 3). Rapid surgery must be performed when there has been an embolic episode and when large and mobile vegetations remain the surgical treatment decision was decided (large mobile vegetation and strong emboligenic character) including the administration of a double intravenous antibiotic therapy. The evolution was marked by the installation of septic shock with cardiac arrest not recovered despite resuscitation measures.

**DISCUSSION**

Infective endocarditis (EI) is a rare condition, of polymorphous expression, with severe complications. Staphylococcus, Streptococcus and enterococci are the most commonly isolated organisms (Rudbaek *et al.*, 2012). Extracardiac complications are, in the vast majority of cases, related to the migration of emboli from the valvular vegetations. Ocular involvement complicates approximately 5% of endocarditis (EI) with a high risk and a typically poor prognosis (Sidnei *et al.*, 2013). It affects people of all ages and represents 2% to 15% of all cases of endophthalmitis, which, on average, are only 5 cases per 10,000 hospitalized patients (Le Thi Huong *et al.*, 1998). Endogenous bacterial endophthalmitis occurs very frequently on a predisposed (60 to 90% of cases (Kresloff *et al.*, 1998))

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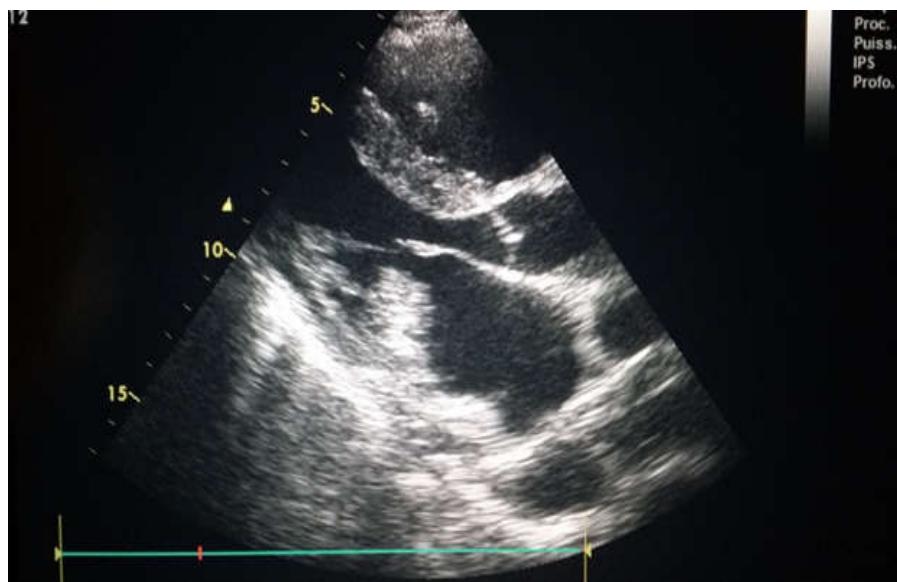


Figure 1 .TTE parasternal long axis showing a loose mitral stenosis with mass in the left atrium



Figure 2. TTE apical 4 chambers showing the mass in the left atrium extended to the small mitral valve



Figure 3. CT cerebral showed a posterior junctional ischemic stroke

diabetic field more frequently (Okada, *et al.*, 1994), a primary infectious focus is found in 90% of cases (Okada, *et al.*, 1994), it is commonly an infective endocarditis (46% of cases) (Okada, *et al.*, 1994). Endogenous infectious endophthalmitis affects the right eye twice as frequently as the left eye, because of the more proximal and direct blood flow to the right carotid artery. Bilateral involvement occurs in 14 to 25% of cases (Okada *et al.*, 1994; Greenwald *et al.*, 1986). The onset of signs and symptoms of endophthalmitis depends on the virulence of organisms involved. The streptococci infection is generally related to a fulminating process with pain that worsens day by day, chemosis, exophthalmia, hypopyon, and corneal melting. Some signs point to the endogenous origin; such as: Roth nodules and chorioretinal foci, subretinal or retrohyaloid abscess with possible pseudopropions (Yong *et al.*, 2012). Bacteriological samples are positive in 80 to 96% of cases (Le Thi Huong *et al.*, 1998). The speed of the treatment improves the prognosis. The rapid implementation of a general synergistic and prolonged treatment associated with a suitable local treatment (intravitreal ± posterior vitrectomy) or even surgical (CEC) is essential in order to save the eye of the patient even his life (2-4). The prognosis remains unknown despite the therapeutic progress, and the mortality in patients with acute embolic endocarditis is monstrously high (1; 4). Several published studies concur that the visual and vital prognosis of endogenous endophthalmitis is committed as early as diagnosis (Guber and Saeed, 2015).

**Conclusion:** Infectious endocarditis is an uncommon pathology with a poor prognosis due to its complications. Endophthalmitis is still a rare complication but can quickly compromise the functional and vital prognosis, requiring an extremely fast and strict management.

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