

Prophylaxis of Infective Endocarditis: A Different Brazilian Reality?

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The incidence of infective endocarditis (IE), a rare disease with high morbidity and mortality, has not undergone a great change over the past decades, despite the advances in diagnosis and treatment. Thus, much effort should be done to reduce the probability of its occurrence. Previously a predominantly streptococcal disease of patients with long-term heart conditions, IE has changed to be a staphylococcal disease of elderly patients suffering from many comorbidities or having intracardiac devices¹.

The principles of IE antibiotic prophylaxis (IEAP) were developed based on observational studies at the beginning of the twentieth century². More than half a century ago, the first recommendation of the American Heart Association (AHA) for IE prevention was headed by Thomas Duckett Jones (1899-1954), and was published months after his death³.

The AHA recommendation published in 2008, which replaces the one included in the general guidelines of valvular heart diseases, is currently used^{4,5}. The European Society of Cardiology, with its guidelines published in 2012, endorses the new trends⁶.

According to the new concepts, the use of antibiotics for IE prophylaxis before starting dental interventional procedures involving the manipulation of gingival tissue or the periapical region of teeth, or perforation of the oral mucosa, should be indicated only for patients at higher risk for the adverse outcome of an episode of IE; thus, their use is not necessary for patients solely at risk for IE.

If on the one hand there was a dramatic change in the IEAP proposition - for example, the National Institute for Health and Care Excellence (NICE) recommended the complete cessation of IEAP in Great Britain⁷ – consequent to reinterpretation of known data, on the other, there was a reduction in the emphasis on the heart condition, chronic rheumatic heart disease, which is highly valued in Brazil. We should, therefore, reflect about the strict adherence to that “renovation”.

Keywords

Endocarditis / mortality; Antibiotic Prophylaxis; Rheumatic Fever.

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Those proposing a significant restriction justify their position with the scarcity of scientific conclusions about the benefit of preventing the development of IE, reserving IEAP to a minority of cases understood as of preoccupying clinical course.

It is worth noting that the new recommendations were not based on new research; thus, a prospective assessment of the real impact of prophylaxis – known to be complex due to the need to include a large number of patients - will be welcome⁸. A primordial factor that was overvaluing, especially by the AHA, was the risk of anaphylaxis to amoxicillin over its possible prophylactic effect.

In Brazil, we cannot ignore rheumatic fever - still the major etiology of valvular heart disease, with its peculiar structural and immunological characteristics -, nor the poor oral health of the general Brazilian population, which has not improved significantly over the past decades. Brazilian adults have recently shown a mean CPO-D (oral health index that translates the cavity experience of an individual over life) greater than 20 teeth, and a component of lost teeth (with no possibility of recovery) greater than 60%⁹.

Therefore, it is not wise to ignore our epidemiological peculiarity of valvular heart diseases, tolerating interpretations of other cultures of a disease, whose bedside experience recommends thoughtfulness in preventing complications.

That is why the Brazilian/Inter-American guidelines for valvular heart diseases, as published in 2011¹⁰, recommends “classic” and expanded IEAP. The Brazilian Society of Cardiology and the Inter-American Society of Cardiology recommend antibiotic prophylaxis before starting dental interventional procedures that bear a high probability of significant bacteremia to patients who have either valvular or congenital heart diseases that represent a risk for IE, regardless of assumptions on differences of disease course. In addition, they reinforce the need for prospective and controlled studies to support the probability of the effect of IEAP.

In conclusion, in face of the Brazilian reality and although we want to be globalized physicians with no cultural frontiers, it is difficult for us to comfortably rule out IEAP to a patient with native valvular lesion, endorsing the comprehensive recommendation of the Brazilian guidelines. That is despite the literature binomial of low incidence of IE and high probability of anaphylaxis to amoxicillin, the latter irrelevant in the Brazilian experience, and, thus, not even mentioned in our guidelines. Those with real bedside experience with IE patients will agree.

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