

Letter to editor

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Infective endocarditis (IE) prophylaxis is used to prevent bacteraemia during invasive procedures. Currently, the European Society of Cardiology (ESC) recommends IE prophylaxis in patients with specific cardiac conditions: after artificial valve implantation, with artificial material used for valve repair, in patients with previous IE and in some patients with congenital heart disease.

The American Heart Association (AHA) recommends IE prophylaxis in the same group of patients, but also in heart transplantation recipients who develop cardiac valvulopathy. Currently, the only treatments that require prevention are dental treatments involving the rupture of the oral mucosa and gingiva.

The importance of oral cavity hygiene is emphasized. Inflammatory lesions in the mouth may pose a greater risk than dental procedures.

It is obvious that potential transient bacteraemia may occur not only during dental procedures, but also in the case of pulmonary or urological invasive procedures (gastroscopy, bronchoscopy), but is higher in the case of dental procedures.

There is no compelling evidence that bacteraemia resulting from either respiratory tract procedures, gastrointestinal or genitourinary procedures, dermatological or musculoskeletal procedures causes IE. Prophylaxis is not recommended in patients undergoing these procedures.

Therefore, currently, according to ESC and AHA only infections of gastrointestinal, genitourinary or pulmonary tracts require antibiotics.

However, due to the increased risk of IE, the use of perioperative antibiotic prophylaxis should be considered in patients undergoing implantation of artificial valves, intravascular prostheses or other artificial material.

Prophylaxis should be started immediately before the procedure, repeated in the case of a prolonged operation and should be completed 48 hours after surgery.

Regardless of the guidelines, we believe that IE prophylaxis may be considered in special cases, because the use of single doses of antibiotics constitutes a low risk of drug-resistant bacterial strain emergence.

A special case of IE is fungal endocarditis (FE). There are many microorganisms in the oral cavity, such as aerobic and anaerobic bacteria, fungi, viruses and protozoa. The most common fungus is *Candida albicans*. Mortality in FE is as high as in bacterial IE.

In patients with compromised immune systems and the presence of artificial materials after cardiac surgery, fungi can penetrate from the mouth into the bloodstream and induce FE. For this reason, we emphasize again the role of oral cavity hygiene. FE should be suspected in the case of preexisting valvular disease or in patients with previous valve surgery and negative findings of bacterial culture. Large vegetations, fever, changed valvular murmurs, neuroembolism and previous valve replacement may be suspected of fungal endocarditis. In the case of FE, early surgery and concomitant antifungal treatment should be used. Amphotericin B is the drug of choice. Secondary prophylaxis should be used for a minimum of 2 years with fluconazole for *Candida* species.

Irrespective of the recommendations we also believe that the treating cardiologist or dentist should respect the decision of the cardiac patient asking for the use of IE prophylaxis, even if it is not currently recommended in the particular case.

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