Letters to the Editor

Prophylaxis of Infective Endocarditis in Dentistry: Analysis of the Situation After Almost a Decade of Clinical Practice Guidelines

Análisis de la situación de la profilaxis de la endocarditis infecciosa en odontología tras casi una década de guías de práctica clínica

To the Editor,

We read with interest the article by Anguita et al.[1] published in *Revista Española de Cardiología* on the dental practice in 2 provinces of Andalusia regarding prophylaxis for infective endocarditis (IE). As the article mentions, the current clinical practice guidelines (CPG) recommend restricting IE prophylaxis to patients at a high risk for this condition (ie, those with previous IE, a prosthetic valve, cyanotic congenital heart disease, or congenital heart disease repaired with prosthetic material) and exclusively in specific dental procedures.[2] These recommendations have been in force since 2009 and were maintained in the 2015 update. The authors state that more than 98% of dentists use IE prophylaxis regimens in their daily clinical practice and that adherence to the current recommendations is high (96%-100%). Nonetheless, there is still a large percentage of antibiotic use in scenarios where these drugs are not indicated. These include 80% to 90% of situations with an indication in the previous CPG, but not the current one, and even 50% to 70% of situations that never had an indication for prophylaxis and are not associated with a risk of endocarditis. The main conclusions of the study by Anguita et al. bring back to light the view that dentists in Spain lack knowledge and proper adherence to the CPG recommendations.

In 2012, our group published the results obtained in a nationwide sample of the same size and with similar professional experience.[3] At that time, more than 90% of dental professionals stated they were unaware of documents specifically addressing IE prophylaxis. There was a high rate of appropriate indications in risk situations (75%), although it was lower than that of other reported series from that time. Prophylaxis use for inappropriate situations reached rates between 35% and 75%. This excessive antibiotic use is associated with an inherent risk of adverse effects and is linked to microbial resistance to these drugs. Scientists and researches are voicing concern over the grave consequences of this practice: increased risk for the health of the population, greater morbidity and mortality in patients, and higher cost for the health system.[4,5]

In an analysis of the time elapsed since 2009, the year when this first CPG containing the more restrictive indications was published, one could consider that our data from 2012 would be justified by the shorter time period (3 years) in which these consensus guidelines were available. However, the 2018 results from Anguita et al.[1] show that although the percentage of appropriate indications is somewhat higher, a number of patients are still receiving prophylaxis for nonindicated situations more than 9 years after the current recommendations were made available to the scientific community. We should reconsider this issue and note that the data do not point to a problem of insufficient time to assimilate and properly apply the newer indications, but rather, a much deeper question of communication and transmission of information between the cardiology and dental health communities. We are in complete agreement with Anguita et al.[1] in the urgent need for coordination and collaboration between the 2 scientific societies implicated to achieve proper formation on both sides, improve IE prophylaxis in our setting, and minimize potential adverse consequences derived from this practice.

Iria Silva Conde,[a,*] Francisco Torres-Saura,[b,c] Alberto Alperi García,[a] and Jesús María de la Hera Galarza[a]

[a]*Área del Corazón, Hospital Universitario Central de Asturias, Oviedo, Asturias, Spain*
[b]*Servicio de Cardiología, Hospital Universitario de Vinalopo, Elche, Alicante, Spain*
[c]*Servicio de Cardiología, Hospital Universitario de Torrevieja, Torrevieja, Alicante, Spain*

* Corresponding author:
E-mail address: iriasilvaconde@gmail.com (I. Silva Conde).

Available online 15 September 2018

REFERENCES

1. Anguita P, Anguita M, Castillo JC, Gámez P, Bonilla V, Herrera M. Are dentists in our environment correctly following the recommended guidelines for prophylaxis of infective endocarditis? *Rev Esp Cardiol.* 2019;72:86–88.
2. Habib G, Lancellotti P, Antunes MJ, et al. 2015 ESC Guidelines for the management of infective endocarditis: The Task Force for the Management of Infective Endocarditis of the European Society of Cardiology (ESC). Endorsed by: European Association for Cardio-Thoracic Surgery (EACTS), the European Association of Nuclear Medicine (EANM). *Eur Heart J.* 2015;36:3075–3128.
3. Torres F, Renilla A, Flórez JP, Secades S, Benito EM, de la Hera JM. Knowledge of infective endocarditis and prophylaxis among Spanish dentists. *Rev Esp Cardiol.* 2012;65:1134–1135.
4. Sakeena MHF, Bennett AA, McLachlan AJ. Enhancing pharmacists' role in developing countries to overcome the challenge of antimicrobial resistance: a narrative review. *Antimicrob Resist Infect Control.* 2018;7:63.
5. Thabit AK, Crandon JL, Nicolau DP. Antimicrobial resistance: impact on clinical and economic outcomes and the need for new antimicrobials. *Expert Opin Pharmacother.* 2015;16:159–177.

SEE RELATED CONTENT:
http://dx.doi.org/10.1016/j.rec.2018.07.018
http://dx.doi.org/10.1016/j.rec.2018.04.029

https://doi.org/10.1016/j.rec.2018.07.013
1885-5857/
© 2018 Sociedad Española de Cardiología. Published by Elsevier España, S.L.U. All rights reserved.