

# Treatment of chronic periodontitis with systemic antibiotics only

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### Dear Editor,

Never before one single paper raised so much concern in our group as did the one recently published by López et al. (2006). Although we agree with Mombelli's comment, in his Guest Editorial (2006), that the referred paper challenges some paradigms of contemporary periodontology, additional clinical observations need to be made regarding technical and philosophical issues. First of all, the authors justify their experimental design based on the presumption that underdeveloped and developing countries do not have financial and human resources to offer conventional therapy to a high percentage of people affected by periodontal disease and, therefore, antibiotics as a sole therapy would be a cheaper alternative. In fact, in that study, systemic antibiotics as a sole therapy was not the tested variable. Instead, López and co-workers tested a combination of mechanical and antibiotic treatment versus a sole mechanical treatment. It must be emphasized that supragingival scaling, which was carried out before administrating antibiotic to the subjects, is indeed a periodontal intervention. For instance, clinical parameters and subgingival microbiota can be affected by professional supragingival biofilm removal (Badersten et al. 1981, 1984, Westfelt et al. 1998, Ximénez-Fyvie et al. 2000), which could in part explain the observed outcome. Additionally, López and co-workers suggest that an effective control of periodontal disease is essential, as there is increasing indication that it negatively affects systemic health. This is also a controversial topic as the specialized literature can either support or refute

that effect (Hujoel et al. 2001, Davenport et al. 2002, López et al. 2002, Scannapieco 2005).

Mounting evidence indicates the benefits of systemic antibiotics, especially the combination of metronidazole and amoxicillin. when associated to mechanical therapy of advanced chronic and aggressive periodontitis (Berglundh et al. 1998, Winkel et al. 2001, Guerrero et al. 2005). Nevertheless, there is a general acceptance that these drugs should be prescribed in a responsible way and, particularly, not be used in replacement of mechanical periodontal therapy (van Winkelhoff 2005, Haffajee 2006). In the context of health policy for developing countries, López and coworkers are correct when they mention that there is a need to find cost-effective measures to control periodontal infections where access to periodontal care is limited. Emphasis on antibiotics, though, could in reality disregard attention to self-care and preventive procedures. A classical example is tuberculosis which, besides being an infection caused by a bacillus, is also the result of lack of hygiene and appropriate living conditions (WHO 2006). One should not forget that, despite the antibiotics widespread availability, we are still concerned about tuberculosis. Regarding the oral microbiota of individuals from developing countries, it has been shown that their composition is complex and includes even unusual organisms (Colombo et al. 2002, Souto et al. 2006). One possible explanation for these findings is the indiscriminate use of antibiotics in those countries. Most importantly, the emergence of multiresistant bacterial strains is a life-

## Letter to the Editor

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threatening occurrence in hospital units throughout the world. In underdeveloped countries this might be a much worse problem due to financial constraints. The consequence of a population-based approach focused on systemic antibiotics for the treatment of chronic periodontitis could in fact be a promotion of more disease. On the other hand, if we work on improving social factors associated with severe periodontitis, such as income, education, housing, diet, employment and labor conditions we might have an impact on periodontal and several systemic diseases (Sheiham 2006). Such an approach would not have adverse effects on population, not lead to microbial resistance, and would have a broader positive effect on general health and quality of life. Back to the question raised by Mombelli (2006) "Heresy? Treatment of chronic periodontitis with systemic antibiotics only", we consider that in line with the evidence, or due to the lack of them, antibiotics as a sole therapy for periodontal disease is indeed a heresv.

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