

## *Porphyromonas gingivalis* and *Porphyromonas endodontalis* and their roles in systematic diseases: True or false?

Sir,

*Porphyromonas gingivalis* and *Porphyromonas endodontalis* are considered as Gram negative anaerobic pigmented bacteria and were originally described as *Bacteroides* and then reclassified as subspecies *Bacteroides gingivalis* and then again reclassified to *P. gingivalis* and *P. endodontalis* under the genus of *Porphyromonas*. These bacteria were isolated from different patients with periodontal diseases and endodontic infection. A few infections were introduced with these bacteria but recent reports have been focused on heart and stroke and other diseases, either communicable or non communicable, under discussion now. In this letter, I would like to bring to your attention and ask if there is any role that these bacteria play in other human infections outside the mouth or not?

Periodontitis is a persistent bacterial infection causing chronic inflammation in periodontal tissues. Species with elevated periodontopathogenic potential include mainly Gram negative bacteria, particularly *Actinobacillus actinomycetemcomitans* and *Porphyromonas gingivalis*.<sup>[1]</sup> Possibly other Gram negative bacteria such as *P. intermedia* and *P. nigresense* or even *Fusobacterium* spp are also involved.<sup>[2]</sup> However,

many studies have indicated that the periodontal disease are a link with heart diseases, diabetic, and, possibly, stroke as well.<sup>[3,4]</sup> Therefore, the control of these diseases may be related to increases in the level of dental and oral hygiene. Without that, the disease may not be controlled and it must be considered in developing as well as developed countries. Perhaps a few diseases may be introduced with the link of *P. gingivalis*, which no one knows at the present time, and it must be indicated in the future in order to prevent the risk of this infection. With regard to *P. endodontalis*, it could be noted that it has presently become medically noteworthy<sup>[5]</sup> because black-pigmented anaerobic rods such as *Prevotella* spp. and *Porphyromonas* spp. are involved in the etiology and perpetuation of endodontic infections.<sup>[6]</sup> Bacterial infection causing chronic inflammation in periodontal tissues are nearly well defined but, the role of *P. endodontalis* is not clear at present. However, *P. endodontalis* was also found in one asymptomatic case without evidence of periradicular pathosis. In one study, *P. endodontalis* was commonly detected in symptomatic cases and asymptomatic root canal infections.<sup>[7]</sup> It should be emphasized that further studies are on-going to, hopefully, give more details. However, the role of dental hygiene and regular dental checks by dentists could be effective in preventing possible infections.

Ali M Tavana

Department of Medical Microbiology, Faculty of Medicine,  
Baqiyatallah (a.s) University of Medical Sciences, Tehran, Iran.  
E-mail: alimehrabitavana@yahoo.com

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