Heart failure and oral bacteria: How could be prevented?

Sir,

It has to be said that more than 400 bacterial species are localized in the subgingival plaque. [1,2] Very common bacteria species—Actinobacillus actinomycetemcomitans, Fusobacterium nucleatum, Tannerella forsythensis (Bacteroides forsythus), Porphyromonas gingivalis, Prevotella intermedia, and spirochetes have also been identified from symptomaticinfected implants.^[3,4] Bacterial infection is the main reason of heart failure. [5] Nowadays different studies have shown that different bacteria are present in the pocket of patient with heart diseases, [6] different factors may have a role in implementation of heart diseases including oral infection[7] and systemic diseases. [8,9] It is supposed that specific oral organisms may have a role for heart failure. [10] Perhaps the role of many oral bacteria is also not clear in heart failure, and the mechanisms of this relationship are not completely known.^[11] Possibly specific organism may be involved in different heart failure, but many more studies are necessary to clear the fact. Good oral hygiene could be more effective against heart diseases, in particular, in people who had a history of heart diseases among their family or previous heart attacks. It seems oral health is the key before and after heart diseases in patients, and it should not be forgotten by patients.

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REFERENCES

- Becker W, Becker BE, Newman MG, Nyman S. Clinical and microbiologic findings that may contribute to dental implant failure. Int J Oral Maxillofac Implants 1990;5:31-8.
- Piovano S. Bacteriology of most frequent oral anaerobic infections. Anaerobe 1999;5:221-7.
- Mättö J, Asikainen S, Väisänen ML, Rautio M, Saarela M, Summanen P, et al. Role of Porphyromonas gingivalis, Prevotella intermedia, and Prevotella

- nigrescens in extra oral and some odontogenic infections. Clin Infect Dis 1997;2:194-8.
- Tavana AM, Korachi M, Boote V, Hull PS, Love DN, Drucker DB. Phospholipids analogues of Porphyromonas gingivalis. J Appl Microbiol 2000:88:791-9.
- Nakano K, Nomura R, Matsumoto M, Ooshima T. Roles of oral bacteria in cardiovascular diseases - from molecular mechanisms to clinical cases: Cell-surface structures of novel serotype k streptococcus mutans strains and their correlation to virulence. J Pharmacol Sci 2010;113:120-5.
- Bochniak M, Sadlak-Nowicka J, Kedzia A, Sobiczewski W. Bacteriological spectrum of periodontal pocket in patients with coronary heart disease and myocardial infarction. Przegl Lek 2009;66:373-9.
- Habib G. Infective endocarditis: What's new? European Society of Cardiology (ESC) guidelines 2009 on the prevention, diagnosis and treatment of infective endocarditis. Presse Med 2010;39:704-9.
- Mitrović-Perisić N, Antić S. Risk factors for coronary heart disease and actual diagnostic criteria for diabetes mellitus. Vojnosanit Pregl 2009;66:973-8.
- Seymour GJ, Ford PJ, Cullinan MP, Leishman S, Yamazaki K. Relationship between periodontal infections and systemic disease. Clin Microbiol Infect 2007;13:3-10.
- Herzberg MC, Nobbs A, Tao L, Kilic A, Beckman E, Khammanivong A, et al. Oral streptococci and cardiovascular disease: Searching for the platelet aggregation-associated protein gene and mechanisms of Streptococcus sanguis-induced thrombosis. J Periodontol 2005;76:2101-5.
- Tavana AM. Isolation of *P. corporis* from oral cavity: What is the role of this bacterium in the mouth and other parts of the human body? Indian J Dent Res 2009;20:129.