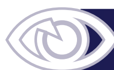

Surveillance Spotlight: Current Concepts in Oral-Systemic Health

Management of Systemic Inflammation by Dentists and Physicians: New Guidelines

By Anthony M. Iacopino, DMD, PhD

A relationship between periodontal disease and atherosclerotic mechanisms responsible for cardiovascular disease and cerebrovascular disease is now generally accepted. Perhaps the best evidence of this acceptance is the recent shift in discussions on this relationship from causality to recommendations for interprofessional co-management of patients with cardiovascular disease and cerebrovascular disease. The *Journal of Periodontology* and the *American Journal of Cardiology* recently published a consensus paper[1] that is the first formal call for changes in practice and new models of care that bring the dental and medical professions closer together in a health and wellness approach targeting risk reduction for systemic inflammation.

The organization of health professions into specialties and subspecialties according to body organs and systems has been pragmatic rather than scientific. The human body is a single unit composed of related biologic processes such that abnormalities of almost any of its parts have profound effects on other body parts and processes. The best example of this is the common and complex relationship of chronic inflammatory diseases and conditions. It has been argued for some time that dental professionals must become more involved in screening and referral for chronic inflammatory diseases, as well as in reinforcement of health and wellness messages centred on healthy lifestyle choices. Similarly, a call has gone out to medical professionals[2] to become more involved in screening and referral for patients with poor oral health, and to provide their patients with information on how poor oral health can cause or exacerbate chronic inflammation.

Although there may still be some debate regarding the strength of the evidence for oral–systemic connections, and although not all health care professionals and researchers have fully accepted the findings of some of the evidence on which these recommendations are based, all health professionals should be aware of the recommendations of the dental and medical consensus panel, as these may guide the future standards of patient care. The most relevant recommendations on periodontitis and atherosclerotic disease are as follows:

Clinical recommendations for patients with periodontitis:

- patients should be informed that they may be at increased risk for atherosclerotic disease
- patients with one known major atherosclerotic risk factor, such as smoking or immediate family history or history of dyslipidemia, should consider a medical evaluation if they have not had one in the past 12 months
- patients with 2 or more atherosclerotic risk factors should be referred for medical evaluation if they have not had one in the past 12 months
- medical evaluation of patients with periodontitis should include assessment of atherosclerotic risk including past coronary or stroke events and family histories of premature atherosclerotic disease or sudden death, diabetes mellitus, hypertension or dyslipidemia
- medical evaluation of patients with periodontitis should include a complete physical examination and annual measurement of blood pressure at rest

- medical evaluation of patients with periodontitis should include a blood lipid profile and blood glucose measurement
- patients with periodontitis and one or more abnormal serum lipid findings should be advised to make multiple lifestyle changes to reduce atherosclerotic risk
- patients with periodontitis in whom target lipid levels are not achieved with lifestyle changes should be prescribed drug therapy for elevated lipids
- all patients with periodontitis who smoke tobacco should be encouraged to discontinue the habit because it is a major risk factor for atherosclerotic disease and periodontitis
- all patients with periodontitis and elevated blood pressure should be treated to normal blood pressure target levels
- all patients with periodontitis and elevated blood pressure should undertake lifestyle changes
- all patients with periodontitis and elevated blood pressure not controlled to target levels with lifestyle changes should be treated with pharmacologic therapy
- patients with periodontitis who are also prescribed calcium channel blockers for hypertension or any other indication should be monitored for worsening of periodontitis in association with gum hyperplasia
- patients with periodontitis who meet criteria for metabolic syndrome should be identified and treated for all risk factors for atherosclerotic disease, beginning with lifestyle changes aimed at weight reduction

Clinical recommendations for patients with atherosclerotic disease with or without a previous diagnosis of periodontitis:

- periodontists and physicians managing patients with existing or newly diagnosed atherosclerotic disease should closely collaborate to optimize atherosclerosis risk reduction and periodontal care
- periodontal evaluation should be considered for patients with atherosclerotic disease who have signs or symptoms of gingival disease, significant tooth loss and unexplained elevations of inflammatory biomarkers
- periodontal evaluation of patients with atherosclerotic disease should include a comprehensive examination of periodontal tissues as assessed by visual signs of inflammation and bleeding on probing, loss of connective tissue attachment detected by periodontal probing measurements and bone loss assessed radiographically
- periodontists and physicians managing patients with untreated or uncontrolled periodontitis should focus on reducing and controlling bacterial accumulations and eliminating oral inflammation. ❖

References

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