A new solution for dentin hypersensitivity

By Fred Michmerhuizen, Online Editor

In an interview with Dental Tribune, Dr. Fotinos S. Panagakos, director of clinical research and strategy within the Research and Development division of Colgate-Palmolive, discusses dentin hypersensitivity, its effect on patients and the dentists who treat them — and a new product that can help alleviate the condition.

How did you get interested in the area of dentin hypersensitivity?
The Colgate-Palmolive company has been very interested in the area of dentin hypersensitivity for many years. We have had a potassium-based sensitivity toothpaste available in most countries for consumers to alleviate the pain associated with dentin hypersensitivity. Recently, Colgate launched a new dentin sensitivity product, Colgate Sensitive Pro-Relief Paste, based on the Pro-Argin technology. The Pro-Argin technology consists of arginine, a naturally occurring amino acid, and insoluble calcium in the form of calcium carbonate.

These ingredients are delivered in a prophylaxis paste containing a mild abrasive system and can be applied with a prophylaxis cup or a cotton-tipped applicator to teeth that exhibit dentin hypersensitivity.

Mechanism of action studies have shown that this technology physically seals dentin tubules with a plug that contains arginine, calcium carbonate and phosphate. This plug, which is resistant to normal pulp pressures and to acid challenge, effectively reduces dentin fluid flow and, thereby, reduces sensitivity.

Recently, a number of studies have been published supporting the launch of this new product. Laboratory tests demonstrating the product’s mode of action, as well as clinical trials demonstrating instant and long-lasting relief of dentin hypersensitivity, have been presented to the dental profession as evidence that the Pro-Argin technology provides instant and lasting relief of dentin hypersensitivity.

The reader can access the full range of research studies on the Colgate dental professional Web site, located at www.colgateprofessional.com.

Can you please explain what causes dentin hypersensitivity and, specifically, what is going on with a patient biologically?
Dentin is normally covered by enamel or cementum. Due to any number of factors, including abrasion or periodontal disease causing gingival recession or erosion removing the enamel, the underlying dentin and dentin tubules can become exposed.

An external stimulus — such as a change in external temperature or air movement — or a physical stimulus can cause discomfort for the patient. The external stimulus is usually transitory and the discomfort subsides shortly after the stimulus is removed.

The accepted theory of how dentin hypersensitivity pain is transmitted suggests that pressure or ionic changes in the fluid that exists in the dentin tubules stimulates the pain experienced by the patient. This is often referred to as the “hydrodynamic theory.”

Inside the dentin tubule, a change in osmotic pressure causes fluid movement, which is transmitted as a stimulus to the odontoblastic process and fires the afferent nerve ending in the dentin tubule.

Please describe how this condition affects patients — and how it affects the dentists who treat them.
Dentin hypersensitivity is growing in incidence and is often a chief concern among patients. Dentin hypersensitivity’s main effect on individuals is the impact on quality of life. Patients have to avoid certain foods and beverages that may trigger a painful response, thus reducing the type of foods and drinks one can enjoy.

In the dental office, what is normally a routine visit may end up being a very uncomfortable appointment for a patient with dentin hypersensitivity. Simple procedures, such as scaling and a prophylaxis, may be painful. And, at times, the pain assosciates with scaling and prophylaxis causes the patient to cancel their appointment.

Please describe the impact of dentin hypersensitivity on quality of life.
Dentin hypersensitivity can seriously impact a patient’s quality of life. At the conclusion of this course, the participant will know and understand the following:

• The biology of dentin hypersensitivity.
• The current methods of treating dentin hypersensitivity.
• Learn about new approaches to treating dentin hypersensitivity.

Attend the webinar to find out about new management approaches in dentin hypersensitivity.

Attend a C.E.-accredited webinar

Dr. Fotinos Panagakos

On Tuesday, March 30 at 7 p.m. EST, Dr. Fotinos S. Panagakos will offer a free one-hour webinar, “Dentin Hyper-sensitivity — New Management Approaches,” followed by a live question-and-answer session with the online audience.

Dentin hypersensitivity continues to be a problem for patients and practitioners alike. The increase in erosion, patient aging and recessions and periodontal disease have all resulted in an increased occurrence of dentin hypersensitivity.

Correct diagnosis and effective treatment are critical to relieving a problem, which can seriously impact a patient’s quality of life.

Attend the webinar to find out about new management approaches in dentin hypersensitivity.

Participants will receive one ADA-CERP C.E. credit. Attendance is free for the live broadcast on March 30. After that, the recorded archive will be available for $95.

Attendees only require an online computer with audio capabilities. To register, visit www.DTStudyClub.com and click on Online Courses.

For more information, visit the Dental Tribune Web site at www.DTtribune.com.
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 связаны с дентинной гиперчувствительностью, может вызвать пациента отказаться от посещения стоматолога.

Диагностика дентинной гиперчувствительности представляет собой серьезные трудности для стоматолога. Определение причины боли может быть сложным, и часто не адекватно для объяснения диагноза. Диагноз необходимо установить, используя дополнительные тесты.

Стоматолог обычно должен проводить тщательное обследование пацентов для определения причины боли.

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С помощью дополнительных тестов стоматолог может определить причину боли. Этим способом можно определить, что боли вызваны дентинной гиперчувствительностью.

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