Immune system response to dental plaque varies by gender and race

Will neglecting to brush your teeth damage more than just your smile?
Can failing to attack dental plaque increase your risk of heart damage?
The answer to both questions may be yes if you are male and black, an Indiana University School of Dentistry study published in the current issue of the Journal of Dental Research reports.
The researchers — led by Michael Kowolik, BDS, PhD, professor of periodontics and associate dean for graduate education at the IU School of Dentistry on the campus of Indiana University-Purdue University Indianapolis — studied 128 black and white men and women and found that dental plaque accumulation did not result in a change in total white blood count, a known risk factor for adverse cardiac events.
However, in black males the researchers noted a significant increase in the activity of neutrophils, the most common type of white blood cell and an essential part of the immune system.
Unlike most other studies that attempt to understand the link between oral inflammatory disease and heart disease risk, these study participants did not have periodontal disease. They were healthy individuals. The 3-D scan on the left saved the patient from unnecessary surgery. On the right, the scan of a father’s mouth before extraction impressed him so much he scheduled his daughter for orthodontic treatment. See page 15A
Dental Tribune Asia Pacific does well in poll

By DTI Staff

Dentists in Asia find Dental Tribune Asia Pacific (DTAP) to be highly up-to-date and applicable to their practice, a reader’s poll conducted at the FDI World Dental Congress in Singapore has revealed. More than 85 percent of those interviewed said that they would recommend the newspaper to a colleague.

Topics readers were most interested in were science and research (24 percent), followed by world news (21 percent) and news from Asia (20 percent).

According to the poll, readers would also like to read more about restorative dentistry, practice management, as well as pediatrics and special needs dentistry.

Dental Tribune Asia Pacific was one of the first local editions published by Dental Tribune International (DTI) media group. The first edition appeared in April 2002.

Meanwhile, the newspaper reaches more than 30,000 dental professionals in 25 countries including Singapore, Malaysia, Hong Kong, the Philippines and Australia, to name a few.

The DTAP offices are based in Hong Kong and Leipzig, Germany. In the last five years, DTI has grown from a rather small endeavour to a significant global publishing network.

At present, DTI — with headquarters in Leipzig, New York and Hong Kong — has publishers and editors in more than 20 countries that deliver the latest news and trends in dentistry to more than 600,000 professionals worldwide.

Local issues of DTI publications are currently available in all relevant markets, including Germany, the UK, Italy, Russia, China, Japan, the US and, this new year, France and India.

“We would like to thank all Dental Tribune readers around the world for taking the time to answer our questions. Please continue to send your suggestions, comments and critiques to feedback@dental-tribune.com.”

suggests both gender and racial differences in the inflammatory response to dental plaque.

“This finding could help us identify individuals at greater risk for infections anywhere in the body, including those affecting the heart,” Kowolik said.

Physicians have known for about a quarter of a century that one of the principle risk factors for a heart attack is an elevated white blood cell count.

“We did not observe higher white blood cell counts as the result of dental plaque accumulation, the increased activity of white blood cells, which we did find, may also carry a higher risk for heart disease,” he added.

“Neutrophil Response to Dental Plaque by Gender and Race” appears in the August 2009 issue of the Journal of Dental Research and adds to the body of evidence that dental hygiene plays an important role in a preventive health program for the whole body.

Other authors of the study, which was supported by a grant from the National Institutes of Health, are Vivian Y. Wahaidi, BDS, of the IU School of Dentistry; Sheri A. Dowsett, BChD, PhD, of Eli Lilly and Company and the IU School of Medicine; Lorrie Young, PhD, of Eli Lilly and Company and the IU School of Medicine; and Robert A. Eckert, MAS, of the Division of Biostatistics of the IU School of Medicine.

Located on the Indiana University – Purdue University Indianapolis campus, the Indiana University School of Dentistry is one of the oldest dental schools in the United States and has more than 11,000 living alumni who are pursuing careers throughout the nation and in more than 30 other countries. The only dental school in Indiana, it has educated about 85 percent of Indiana dentists.