

MENSTRUAL CYCLE AFFECTS PERIODONTAL HEALTH

There is an increase in gingival inflammation and discomfort associated with some women's menstrual cycles, say researchers in the March issue of *Journal of Periodontology*.

Researchers compared the gingival and periodontal status of 18 premenopausal women between the ages of 20 and 50 years at different time points of their menstrual cycles: ovulation, premenstruation and menstruation. During the examination, researchers measured plaque index, gingival index, probing depth, gingival recession and clinical attachment level.

"What we found is that several women reported considerable oral symptoms prior to menses," said lead author Dr. Eli E. Machtei, Rambam Medical Center and Technion Faculty of Medicine, Haifa, Israel.

The symptoms included a slight burning sensation, bleeding with minor irritation, redness to the gums, oral ulcers, and general pain and discomfort in the gums.

"Gingival inflammation was lower during menstruation than during ovulation and premenstruation," said Machtei. "This may be attributed to the hormone known as serum estradiol, which is a natural form of estrogen that peaks and drops during ovulation and premenstruation."

"Further studies will be required to explore the mechanism by which this phenomenon occurs, and to examine whether these transitional changes have any lasting negative effects on the periodontium," said Dr. Michael P. Rethman, president of the

American Academy of Periodontology.

SALIVA-DERIVED PEPTIDE SHOWS PROMISE AS ORAL ANTIFUNGAL AGENT

Oral biologists at the State University of New York at Buffalo have developed a saliva-derived peptide that may be able to treat candidiasis and other fungal conditions in people undergoing chemotherapy or organ transplantation or those infected with HIV.

In a March 10 presentation at the International Association for Dental Research meeting in Honolulu, Dr. Libuse Bobek, Ph.D., professor of oral biology in the University at Buffalo School of Dental Medicine and senior investigator, presented research findings.

"We wanted to develop an antifungal agent that would have fewer side effects than current treatments," she said. "We found that a peptide called MUC7 12-mer-D—a small piece of the parent human salivary protein mucin—killed 95 percent of the fungal agent *Candidiasis albicans* in saliva in vitro."

Peptides are susceptible to enzyme degradation in saliva, which makes them less active or completely inactive, but this is not the case with MUC7 12-mer-D, Dr. Bobek noted. "This peptide, in which D-amino acid derivatives are substituted for natural L-amino acids, is not recognized and thus is not broken down by protein-degrading enzymes in saliva," she said.

Dr. Bobek and her colleague Dr. Guo-Xian Wei tested the activity of the D peptide in saliva and salt solutions containing *C. albicans*. They also compared its fungicidal activity with

QUESTION OF THE MONTH RETIRED AS A COST-CUTTING MEASURE

This month's Question of the Month card (found opposite page 580) will be the last. JADA will publish reports on the results of the cards from the March, April and May issues, and then the reports, too, will be discontinued.

JADA thanks its readers for their response to this feature through the years, and *The Journal* will continue to welcome input from readers in other ways.

MUC 12-mer, the natural L form of the peptide, which is active against *C. albicans* but is susceptible to enzyme degradation.

They found that in saliva at a high concentration, the D peptide killed 95 percent of *C. albicans*, while the L peptide killed only 56 percent. At much lower concentration, the D peptide killed 85 percent of the fungal agent, while the L form killed less than 20 percent. The D peptide also was much less toxic than current treatments.

Researchers plan to test the antifungal activity of MUC7 12-mer-D in a mouse model of oral candidiasis.

ORAL BACTERIA LINKED TO PRETERM BIRTH

A bacterium associated with periodontal disease can trigger preterm births or stillbirths in mice, say researchers in the April issue of the *Journal of Infection and Immunity*.

Fusobacterium nucleatum is an anaerobic gram-negative bacterium found in plaque and is associated with periodontal disease. It has been found in the placentas and amniotic

fluid of up to 30 percent of women who have undergone premature labor.

Researchers injected laboratory mice with *F. nucleatum* taken from the placentas and amniotic fluid of women who had experienced preterm deliveries. These mice gave birth to stillborn pups within 72 hours of injection, reported investigators from the Case Western Reserve University, Cleveland, and Duke University, Durham, N.C.

"The number of bacteria can increase 10,000 fold when periodontal disease is present," said lead investigator Yiping Han, Ph.D., a microbiologist at CWRU. "This bacterium takes the opportunity to enter the bloodstream when bleeding occurs with gum disease."

Dr. Han added that in humans, periodontal disease and pregnancy—with its hormonal changes—both challenge the immune system, which may have a harder time warding off the bacteria and keeping in check the numbers of the bacteria normally present in the mouth.

When the immune system is compromised through periodontal disease and pregnancy, the *F. nucleatum* can target the placenta and amniotic fluid, leading to a localized infection in the uterus that can trigger premature labor, Dr. Han said.

"Periodontal disease is treatable and preventable," said Dr. Han. She advises women who are thinking about getting pregnant or are pregnant to visit their dentists for check-ups and maintain healthy oral hygiene practices of brushing and flossing.

Compiled by Amy E. Lund, editorial coordinator.

MEETINGS

■ The American Dental Society of Europe will hold its 110th Meeting June 22-25 in Galway, Ireland. For more information, visit "www.adse.co.uk".

■ The International College of Dentists, USA Section, will hold its 24th Continuing Education Conference July 14-18 in Salt Lake City. For more information, contact Dr. Robert Brady by phone at 1-301-251-8861, by fax at 1-301-738-9143 or by e-mail at "reg-sg@ocd.org" or visit "www.icd.org".

■ The FDI World Dental Congress will be held Sept. 10-13 in New Delhi, India. For more information, contact John Hern by phone at 1-312-440-2727, by fax at 1-312-587-4735 or by e-mail at "hernj@ada.org".

■ The American Association of Dental Examiners will hold its 121st Annual Meeting Sept. 29-30 in Orlando, Fla. For more information, contact Molly Nadler by phone at 1-312-440-7464, by fax at 1-312-440-3525 or by e-mail at "mnadler@aadexam.org" or visit "www.aadexam.org".

■ The American Association of Oral and Maxillofacial Surgeons will hold its 86th Annual Meeting Sept. 29-Oct. 2 in San Francisco. For more information, contact Colleen Donohoe by phone at 1-847-678-6200, by fax at 1-847-678-6286 or by e-mail at "cdonohoe@aaoms.org" or visit "www.aaoms.org".

■ The Czech Dental Chamber will hold Prague Dental Days Oct. 13-16 in Prague. For more information, contact Hana Stepankova by phone at 011-420-224-918-613, by fax at 011-420-224-917-372 or by e-mail "stepankova@dent.cz" or visit "www.dent.cz".

APPOINTMENTS/ELECTIONS/AWARDS

■ **Dr. Keith Black**, Asheville, N.C., was elected president of the North Carolina Association of Orthodontists. Other officers are **Dr. Raymond C. Ball**, Morehead City, president-elect; and **Dr. Madeline Serrano**, Durham, secretary-treasurer. **Dr. Richard D. Alston**, Rocky Mount, **Dr. Gregory Richardson**, Wilmington, and **Dr. Keith Sellers**, Charlotte, are directors-at-large. **Dr. David Paquette**, Charlotte, is immediate past president.

■ **Dr. W. Thomas Colquitt**, Shreveport, La., was elected president of the American Academy of Restorative Dentistry. Other officers are **Dr. Thad Langford**, Bozeman, Mont., president-elect; **Dr. Amp W. Miller III**, Dallas, secretary-treasurer; and **Dr. Frank L. Higginbottom**, Dallas, associate editor.

■ **Dr. Richard N. Goodroe**, Tucker, Ga., was named president of the Thomas Hinman Dental Society. **Dr. William F. Schroeder**, Jonesboro, Ga., was named general chair of the Hinman Meeting.

■ **Dr. Howard Pranikoff**, Ormond Beach, Fla., was elected president of the Alpha Omega International Dental Fraternity.

■ **Dr. Timothy P. Walsh**, Berwyn, Ill., was elected president of the Midwest Society of Periodontology. Other officers are **Dr. Catherine A. Bishop**, Moline, Ill., president-elect; **Dr. Hom-Lay Wong**, Ann Arbor, Mich., vice president; and **Dr. William Giannobile**, Ann Arbor, secretary. **Dr. Timothy McNamara**, Greenfield, Wis., is immediate past president.

CALENDAR OF EVENTS

ADA ANNUAL SESSIONS

2004 Sept. 30-Oct. 3, Orlando, Fla.

2005 Oct. 6-9, Philadelphia

2006 Oct. 16-19, Las Vegas

2004 CONSTITUENT DENTAL SOCIETY ANNUAL MEETINGS

Meeting dates are subject to change. Dentists interested in attending any of the listed meetings should contact the sponsoring organization for more information.

Alabama Dental Association, 836 Washington St., Montgomery 36104, 1-334-265-1684, **June 8-13, Orange Beach.**

Alaska Dental Society, 9170 Jewel Lake Road, Anchorage 99502-5381, 1-907-563-3003, **Annual Session, June 2-5, Fairbanks.**

California Dental Association, P.O. Box 13749, Sacramento 95814, 1-916-443-0505, **Fall Scientific Session, Sept. 10-12, San Francisco.**

Colorado Dental Association, 3690 S. Yosemite, Suite 100, Denver 80237-1808, 1-303-996-2845, **Annual Meeting, June 11-13, Vail.**

Florida Dental Association, 1111 E. Tennessee St., Suite 102, Tallahassee 32308-6913, 1-850-681-3629, **Florida National Dental Congress, June 17-19, Orlando.**

Georgia Dental Association, Suite 200, Bldg. 17, 7000

Peachtree Dunwoody Road N.E., Atlanta 30328-1655, 1-404-636-7553, **Annual Meeting, July 22-25, Amelia Island, Fla.**

Idaho State Dental Association, 1220 W. Hays St., Boise 83702, 1-208-343-7543, **June 16-19, Boise.**

Illinois State Dental Society, P.O. Box 376, Springfield 62705, 1-217-525-1406, **Sept. 10-12, Moline.**

Indiana Dental Association, P.O. Box 2467, Indianapolis 46206, 1-317-634-2610, **June 10-12, Indianapolis.**

Maine Dental Association, P.O. Box 215, Manchester 04351-0215, 1-207-622-7900, **MDA Annual Convention, June 18-19, Rockport.**

Maryland State Dental Association, 6410 Dobbin Road, Suite F, Columbia 21045, 1-410-964-2880, Chesapeake Dental Conference, **Sept. 17-19, Ocean City.**

Michigan Dental Association, 230 Washington Square, N, Suite 208, Lansing 48933, 1-517-372-9070, **May 19-22, Detroit.**

Mississippi Dental Association, 2630 Ridgewood Road, Jackson 39216, 1-601-982-0442, **June 4-9, Destin, Fla.**

Missouri Dental Association, 3340 American Ave., P.O. Box 104900, Jefferson City 65110-4900, 1-573-634-3436, **Heart of America Dental Symposium, July 28-31, Branson.**

New Jersey Dental Association, One Dental Plaza, P.O. Box 6020, North Brunswick 08902-6020, 1-732-821-9400, **Annual Convention, June 9-11, Atlantic City.**

New Mexico Dental

Association, 3736 Eubank Blvd., Suite D2, Albuquerque 87111, 1-505-294-1368, **June 9-12, Albuquerque.**

North Dakota Dental Association, P.O. Box 1332, Bismarck 58502, 1-701-223-8870, **Annual Session, Sept. 10-12, Bismarck.**

Ohio Dental Association, 1370 Dublin Road, Columbus 43215-1009, 1-614-486-2700, **Sept. 16-19, Columbus.**

Rhode Island Dental Association, 200 Centerville Road, Suite 7, Warwick 02886-4339, 1-401-732-6833, **May 19, Providence.**

Vermont State Dental Society, 100 Dorset St., Suite 18, South Burlington 05403-6241, 1-802-864-0115, **Vermont Annual Dental Team Meeting, Sept. 23-24, Burlington.**

Virginia Dental Association, 7525 Staples Mill Road, Richmond 23228, 1-804-261-1610, **Sept. 8-12, Norfolk.**

Washington State Dental Association, 2033 Sixth Ave., Suite 333, Seattle 98121, 1-206-448-1914, **Pacific Northwest Dental Conference, July 22-23, Seattle.**

West Virginia Dental Association, 2003 Quarrier St., Charleston 25311-2212, 1-304-344-5246, **Annual Session, July 15-18, White Sulphur Springs.**

Wyoming Dental Association, 502 S. Fourth St., Laramie 82070, 1-307-755-4009, **Annual Session, June 10-13, Sheridan.**

Compiled by Mark Berthold, senior editor, ADA News.