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Are periodontal disease and prostatitis linked?

Researchers from Case Western Reserve University School of Dental Medicine and University Hospitals Case Medical Center report initial results from a small sample that inflammation from gum disease and prostate problems just might be linked. They discuss their new evidence in the *Journal of Periodontology*, the official journal of the American Academy of Periodontology.

The researchers compared two markers: the prostate-specific antigen (PSA) used to measure inflammation levels in prostate disease, and clinical attachment level (CAL) of the gums and teeth, which can be an indicator for periodontitis.

A PSA elevation of 4.0 ng/ml in the blood can be a sign of inflammation or malignancy. Patients with healthy prostate glands have lower than 4.0ng/ml levels. A CAL number greater than 2.7 mm indicates periodontitis.

Like prostatitis, periodontitis also produces high inflammation levels.

"Subjects with both high CAL levels and moderate to severe prostatitis have higher levels of PSA or inflammation," stated Nabil Bissada, chair of the department of periodontics in the dental school.

Bissada added that this might explain why PSA levels can be high in prostatitis, but sometimes cannot be explained by what is happening in the prostate glands.

"It is something outside the prostate gland that is causing an inflammatory reaction," he said.

Because periodontitis has been linked to heart disease, diabetes and rheumatoid arthritis, the researchers felt a link might exist to prostate disease.

Thirty-five men from a sample of 150 patients qualified for the study, funded by the department of periodontology at the dental school. The participants were selected from patients at the University Hospitals Case Medical Center with mild to severe prostatitis, who had undergone needle biopsies and were found to have inflammation and in some patients, malignancies.

The participants were divided into two groups: those with high PSA levels for moderate or severe prostatitis or a malignancy and those with PSA levels below 4 ng/ml. All had not had

dental work done for at least three months and were given an examination to measure the gum health.

Looking at the results, the researchers from the dental school and the department of urology and the Institute of Pathology at the hospital found those with the most severe form of the prostatitis also showed signs for periodontitis.

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Other authors on the paper, "Association between Periodontal Disease and Prostate-Specific Antigen Levels in Chronic Prostatitis Patients," were: Nishant Joshi, Sena Narendran, Rick Jurevic and Robert Skillicorn from the CWRU dental school; and Donald Bodner and Gregory T. MacLennon from the University Hospitals Case Medical Center.

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