AAID: Platelet-rich plasma enhances bone, tissue growth

An exciting treatment gaining acceptance in orthopedics and sports medicine, called platelet-rich plasma therapy (PRP), shows strong potential for accelerated healing of dental implant procedures, according to a prominent dental researcher speaking at the American Academy of Implant Dentistry (AAID) annual meeting.

James Rutkowski, DDS, PhD, editor of the Journal of Oral and Implantology and a practicing implant dentist in Pennsylvania, spoke at the AAID convention and said that for dental-implant patients, platelet-rich plasma therapy can accelerate bone and tissue growth and wound healing and help assure long-term success of implant placements.

“What could be better than using the body’s own regenerative powers to grow bone and soft tissue safely and quickly? For dental implant procedures, PRP treatments can jump start bone growth and implant adherence in just two weeks, which cuts down the time between implant placement and affixing the permanent crown,” Rutkowski said.

Platelet-rich plasma is obtained from a small sample of the patient’s own blood. It is centrifuged to separate platelet growth factors from red blood cells. The concentration of platelets triggers rapid growth of new bone and soft tissue.

“There is very little risk, because we are accelerating the natural process in which the body heals itself,” Rutkowski said. “PRP speeds up the healing process at the cellular level, and there is virtually no risk for allergic reaction or rejection because we use the patient’s own blood.”

Rutkowski noted that some orthopedic physicians have been using PRP with success for painful and hard to treat injuries like tennis elbow, tennis- and ligament damage. An avid Pittsburgh Steelers fan, Rutkowski couldn’t resist mentioning that PRP was used in 2009 pre-game Super Bowl treatment for two Steelers players (Heinz Ward and Troy Polamalu), and both were instrumental in the team winning its sixth Super Bowl.

For dental surgery applications, Rutkowski explained that PRP is mixed as a gel that can be applied directly in tooth sockets and other sites. It also is effective in cases when bone grafts are required to foster proper bone integration for implants. Growth factors in PRP preparations help the grafts bond faster with the patient’s own bone. Rutkowski reported that in one of his studies there was increased radiographic bone density during the initial two weeks following PRP treatment when compared to sites that did not receive PRP treatment.

“Accelerated healing is a goal we’ve been seeking in implant dentistry and we now have treatment that activates the natural healing process. It is a very promising development for implant dentistry,” explained Rutkowski.

He estimates that about 10 percent of practicing implant dentists have used PRP treatment and predicts it will become more common as more studies are performed.

About AAID

AAID is based in Chicago and has more than 3,500 members. It is the first organization dedicated to maintaining the highest standards of implant dentistry by supporting research and education to advance comprehensive implant knowledge for more information, see www.aaid.com.

New clinical guidelines released by the International Diabetes Foundation (IDF) emphasize the importance of periodontal health for people with diabetes. Diabetes affects approximately 246 million people worldwide, and this number is only expected to increase. The IDF is an organization of 200 national diabetes associations from 160 countries.

The new IDF oral health clinical guideline supports what research has already suggested: that management of periodontal disease — which affects the gums and other supporting tissues around the teeth — can help reduce the risk of developing diabetes; and can also help people with diabetes control their blood sugar levels. Studies have suggested there is a two-way relationship between diabetes and periodontal disease, and the IDF guideline outlines helpful guidance for health professionals who treat people living with and at risk for diabetes.

The IDF guideline contains clinical recommendations on periodontal care, written in collaboration with the World Dental Federation (FDI), that encourage health professionals to conduct annual inquiries for symptoms of periodontal disease such as swollen or red gums or bleeding during tooth brushing, and to educate their patients with diabetes about the implications of the condition on oral health and especially periodontal health.

“Everyone should maintain healthy teeth and gums to avoid periodontal disease, but people with diabetes should pay extra attention,” said Samuel Low, DDS, MS, associate dean and professor of periodontology at the University of Florida College of Dentistry, and president of the American Academy of Periodontology (AAP). “Periodontal disease triggers the body’s inflammatory response which can affect insulin sensitivity and ultimately lead to unhealthy blood sugar levels. Establishing routine periodontal care is one way to help keep diabetes under control.”

In recognition of American Diabetes Month, the American Academy of Periodontology commends the International Diabetes Foundation on the release of the Guideline on Oral Health for People with Diabetes.

About AAP

The American Academy of Periodontology (AAP) is the professional organization for periodontists — specialists in the prevention, diagnosis and treatment of diseases affecting the gums and supporting structures of the teeth and in the placement of dental implants. The AAP has 8,000 members worldwide.