Protein Could Improve Dental Implants

Using a bone-creating protein to augment the maxillary sinus could improve dental implant success, according to Georgia Health Sciences University researchers.

Dental implants, screws that anchor permanent restorative teeth, won't work if the bone in which they are anchored is too thin. Bone-thinning is a common cause and consequence following tooth loss. The current favored solution is to supplement the area with bone grafts to stabilize the implant base. But that technique is problematic: “primarily because it involves additional surgeries to harvest the bone,” said Dr. Ulf M. E. Wikesjö, Interim Associate Dean for Research and Enterprise in the GHSU College of Dental Medicine.

In animal studies, he and his team at the GHSU Laboratory for Applied Periodontal & Craniofacial Regeneration found that implanting bone morphogenetic protein in the sinus more new bone will form within four weeks than using conventional bone grafting at the same site. “We found that BMP induced superior bone quality over that following bone grafts, which improves the chances for successful implants,” Wikesjö said. “BMP is phenomenal, because it’s a true, off-the-shelf product with ease of use that can produce real results, and it could be the new gold standard for this procedure.”

According to the American Association of Oral and Maxillofacial Surgeons, 69 percent of adults ages 35-44 have lost at least one tooth due to decay, disease or trauma, and 26 percent of adults have lost all permanent teeth by age 74. Before dental implants were available, the only options for replacing these missing teeth were dentures and dental bridges, both of which could lead to further bone loss. Implants provide patients with numerous benefits, including improved oral health, appearance, speech, convenience, durability and ability to eat.

GSK and DENTSPLY cooperate in oral health

Daniel Zimmermann

LONDON, UK/NEW YORK, USA/LEIPZIG, Germany: DENTSPLY has entered into a co-branding agreement with GlaxoSmithKline, a global health-care manufacturer based in the UK. According to a press note released in January, the deal will allow the US company to combine its NU PRO in-office prophylaxis range with Sensodyne, GSK’s specialist toothpaste brand for patients suffering from dentine hypersensitivity. According to the companies, no exchange of cash or equity by either party is involved in the agreement.

NU PRO, which consists of prophylaxis and polishing pastes, is based on NovaMin, a technology acquired by GSK through a multi-million dollar purchase in 2009. The formula contains calcium sodium phosphosilicate, a synthetic mineral found to seal dentinal tubules, the main reason for hypersensitive teeth. GSK currently uses the same technology in its heavily marketed Sensodyne toothpaste brand.

Carlton Lawson, Vice-President of Sensodyne, GSK, said that by utilising both companies’ brands and capabilities, his company aims to build awareness of the benefits of NovaMin and further consolidate its position as the leader in the over-the-counter oral health-care market.

According to the company, 90 per cent of its worldwide revenue is earned through toothpaste sales. The company also claims to have a global market share of almost 10 per cent.