Immediate implantation in combination with biomaterials can effectively prevent bone resorption after tooth extraction. This was one of the key findings presented at the tenth International Osteology Symposium in the principality of Monaco last month.

Well-known periodontologist Prof. Jan Lindhe from Sweden told event participants in a keynote lecture that although bone resorption in the mesiodistal dimension can be prevented through immediate implant placement, preclinical studies have shown that ridge preservation procedures with biomaterials are usually required to preserve the buccopalatal dimension too, a discovery also confirmed by fellow presenter Dr Dietmar Weng from Germany.

Presentations on other important aspects of dental implant therapy included soft-tissue management and peri-implantitis, the frequency of which, according to presenter Björn Klinge from the Department of Dental Medicine at the Karolinska Institutet in Stockholm, Sweden, remains difficult to assess owing to contradictory scientific data and differences regarding its definition. While the prevalence of the condition itself remains a matter of debate, there was general agreement that primary contributing factors include inadequate bone volume, as well as the distance between and the position of the implants.

In addition, new clinical evidence was presented that supports the assumption that sufficiently keratinised mucosa around implants can prevent peri-implantitis. Biomaterials offer significant advantages over connective tissue grafts or free gingival grafts in this regard because their use has demonstrated greater patient satisfaction owing to the reduction in operating time and post-operative pain, according to US periodontist Todd Scheyer.

This year was the second time that the Osteology Foundation held its scientific symposium in Monaco. Established through a partnership between Dr Peter Geistlich, founder and former CEO of the company with the same name, Dr Philip Boyne from the Loma Linda University and Harvard professor Myron Spector a decade ago, the foundation based in Switzerland has become a leading platform for research on regenerative therapies for oral tissue.

Since 2003, it has spent CHF0.5 million annually for funding scientific studies on the topics of regenerative dentistry and dental-tissue engineering, according to its figures, among them a recent paper by a clinical team from the Faculty of Dentistry at the Complutense University of Madrid that evaluated a novel flapless technique for cleft-palate repair by injection of a BMP-2-containing hydrogel.

Overall, more than 40 studies conducted by researchers around the world have been financially supported this way over the last ten years, the foundation said. This year’s Osteology Research Prize was awarded to clinicians from Spain and Italy.

It also holds regular scientific symposia to educate practitioners on the subject of regenerative dentistry. This year’s edition drew 2,700 participants to Monaco. Besides 60 scientific presentations, the event offered pre-congress hands-on workshops, a research forum, a poster exhibition and an industry showcase. The next edition is to be held in 2016.