National Osteology Symposium in Bonn

Fully focussed on soft tissue

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One topic, but many facets—the Osteology Symposium “Soft Tissue Special” on 24 March in Bonn encompassed a broad range of subjects from biological fundamentals to clinical practice.

It was the first time for an Osteology Symposium to be dealing solely with one issue. “Soft tissue management has become more and more important in the recent years, not only for periodontists” explained Prof Søren Jepsen, Bonn, who chaired the conference together with Prof Wilfried Wagner, Mainz. With conferences on the oral tissue regeneration having been dominated by techniques for guided bone regeneration for a long time, now the soft tissue management is taking the spotlight. Prof Wagner explained the awakening interest: “There are some attractive new biomaterials that could replace autologous soft tissue grafts for indications such as recession coverage, vestibuloplasty or gain of keratinized tissue. So, with the ‘Osteology Soft Tissue Special’ we wanted to provide a comprehensive overview on where we stand today on the soft tissue management and where we are heading.” Main questions during the lectures were: Which grafts lead to good results in which indications? What are the opportunities and limitations of biomaterials as compared to free gingival grafts and connective tissue grafts, respectively?

Differences between gingival and peri-implant mucosa

350 attendees joined the one-day symposium which took place in the former Federal German Bundestag in Bonn. The programme began with a lecture from the world-famous periodontist Prof Jan Lindhe. He described the key differences between the normal gingiva and the peri-implant mucosa. One important difference is the loss of collagen fibres in the mucosa due to tooth extraction and the ensuing resorption of bundle bone: In the peri-implant mucosa, the quantity of blood vessels and fibroblasts is lower, whereas the amount of collagen is higher. Thus, in many respects, the peri-implant mucosa resembles scar tissue.

Biomaterials versus autologous grafts

Clinical applications followed the biological fundamentals. Firstly, Dr Markus Schlee, Forchheim, and Prof Anton Sculean, Bern, presented new data on the recession coverage. While Dr Schlee focused on single-recession coverage with the coronally advanced flap (modified Zucchelli technique), Prof Sculean demonstrated an advanced technique for coverage of multiple recessions, the modified tunnel technique. Both speakers had conducted their
own studies in which they compared autologous grafts with biomaterials such as the porcine collagen matrix Geistlich Mucograft®. The matrix is not cross-linked and consists of type-one and type-three collagen. It has a bilayer structure, with the compact structure providing protection, allowing its usage in both closed and open integrative healing processes. The spongy structure stabilises the blood clot and facilitates the ingrowth of cells and sprouting of blood vessels.

The data Dr Schlee and Prof Sculean presented show that autologous grafts and the collagen matrix yield comparable results. Although the autologous grafts are the gold standard for recession coverage, the advantages of the tissue substitute material are obvious: patients profit from reduced pain and swelling because none of their own tissue needs to be removed and the operation time is drastically diminished.

Other speakers also compared autologous grafts to tissue substitute materials—for indications like thickening of keratinized tissue, ridge preservation and vestibuloplasty.

_Plenty of room for practical training_

In soft tissue management, therapeutic success strongly depends on the practitioner’s expertise. Thus it is important for him or her to know the material well and to practice the application correctly.

The speakers pointed out that the collagen matrix should best be used in a dry state and should be sutured carefully, if at all. Four workshops and an interactive forum in the afternoon offered plenty of room for training, discussions and experiences with new techniques and materials. At the very site of earlier political discussions, there were now heated debates on the importance of "morphotype" in the choice of therapy and optimal peri-implantitis treatment. There was, however, an agreement when it came to assessing the symposium: it was a real inspiration for everyday practice.

The next International Osteology Symposium will take place from May 2–4 in Monaco—save the date!