

Adhesive dentistry – no future? We don't think so!

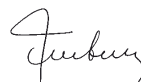
Maybe it was due to a lack of printable topics for newspapers as usual at the beginning of a new year, but in early January we had several cumulated press interviews regarding regenerative issues in restorative dentistry. Focusing on scientific papers dealing with stem cells, dentin and enamel regeneration, several journalists from different newspapers and journals raised similar questions, which were published in due course after the interviews. The main question in that context was: Will we really be able to regenerate enamel and dentin in the near future and will this replace conventional restorations in the long term?

However, while looking ahead, it is always necessary to look back across the same time span, ie, when we want to talk about "Dentistry 2030", which is just 13 years from now, we should also analyze the actual scientific status thirteen years ago, which was 2004. Due to some congress appearances back then, we remember that this was the beginning of self-adhesive resin composite developments. Also the first self-adhesive resin cements were marketed for luting of indirect restorations. We also remember that we were often not sure whether these materials really worked, but over time these doubts dwindled due to clinical experience. However, early publications predicted that self-adhesive resin composites for restoring carious lesions would be realistically used within a few years. Now, 13 years later, this is still a dream for direct fillings. Although there are some materials on the market, we all know the typical clinical limitations of simultaneously

being acidic enough to bond to enamel and mild enough to bond to dentin.

The same is true for regenerative aspects in restorative dentistry. This is also a dream and of course scientifically interesting and truly desirable, but there are still several open questions when we look more closely at transferring this to the intraoral situation. We have to face questions like: How realistic is it to obtain affordable materials for this when used in daily dental practice? How is an appropriate covering managed while the lesions are slowly filled with newly growing dentin and enamel stimulated by signaling molecules? How long will it take to obtain regrown dentin with similar mechanical properties to replace lost dentin? How is cessation of dentin formation guaranteed once the space is filled? Do we have to reopen the cavities and cover the de novo dentin with conventional restorative procedures?

So looking ahead, we can honestly say that adhesive dentistry, which is still nothing less than the No. 1 silent revolution in dentistry, will have a bright future. This is even more true because today's patients greatly appreciate bonding instead of cutting – this unique minimal invasiveness is fundamentally provided by successful adhesive dentistry.



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