J. Stomat. Occ. Med. (2009) 2: 53–54
DOI 10.1007/s12548-009-0019-7
Printed in Austria

international journal of
stomatology & occlusion medicine

Editorial

The theme of the current issue of the "International Journal of Stomatology and Occlusion Medicine" is splints. This therapeutic subject, which is essentially very simple, has been avidly and emotionally discussed for a long time, especially at the level of scientific research. If one considers published data, one's own experience, as well as reports from colleagues and patients, one may conclude that splints are used very frequently and to an increasing extent. The reasons for their clinical application (indication), their presumed effect (mechanism of action) and the desired goal of treatment (the effect) are very controversial and clearly reflect the trend one observes in various scientific publications: splints have been the subject of scientific investigation for a long time now, but a uniform consensus is yet to be achieved. Likewise, widely applicable rules for correct application are lacking.

A number of highly qualified scientific reviews conclude that the use of splints is not fully supported by the current level of scientific research, and the external level of evidence in this regard is low. In fact, splints go by the rather unflattering byname of "dental crutches". However, I believe it is exactly this byname that expresses the significance of splints for patients who need them. As a scientist, from the academic perspective I fully endorse the view that intraoral splints still need to be conclusively explained and clarified. However, as a practical dentist I could not conceive the idea of deleting this treatment from my therapy spectrum and depriving the patient of this clinically successful and necessary therapy option. No person today would think of depriving an individual of a walking aid that he or she might require in order to perform the activities of daily living or refraining from prescribing an aid of this nature. The need to use the walking aid is also not doubted, although the value of such an aid has not been confirmed by scientific experiments. I am sure we all agree that the value of a parachute need not be proven in blinded, randomised clinical trials in cross-over design.

If one attempts to answer the question as to why final clinical clarification of the basic aspects of splint use has not been provided thus far, it would not be possible to provide a simple answer. Worthy of note is the fact that the splint or the splint concept does not exist in the scientific literature. Rather, we have a large number of names and suggested uses. A closer look reveals that the diversity of names is based on mild and apparently insignificant differences. Interestingly, the investigations are not focussed on clinical application. Rather, they attempt to prove the superiority of a specific type of splint as opposed to its competitor. One gets the impression of a competition rather than a serious scientific development or debate.

However, based on our experience we postulate the following: the therapeutic success of intraoral splints is not dependent on the specific designation of the splint. Rather, the therapeutic success of intraoral splints is based on establishing the correct indication and modality of application.

The correct indication for intraoral biteguard splints: My decision to use a therapeutic concept based on a pre-given splint design (a specific type of splint) requires that the patient adjust all of his or her morphological criteria to the splint's design. Our readers will readily agree with the fact that this approach is by no means in conformity with the current requirements of patient-oriented medicine. Today everybody demands target therapy – a therapy oriented to the patient as closely as possible and not vice versa. Looking at the scientific literature from this point of view one frequently observes the opposite. Quite obviously, no type of splint can be proven to be superior in terms of its therapeutic effect. The placebo effect, which also includes the effect of the doctor – patient relationship, appears to be quite pronounced. Thus, the clinical success of daily use depends to a large extent on this individualisation of the splint, based on the practician's expertise.

Modality of application: Quite often the practician is dissatisfied when he or she reads scientific articles about splints because they provide precious little information about the actual use (splint construction, instructions for the patient, follow-up controls, accompanying measures and possible occlusal corrections). However, these points are the essential aspects of their therapeutic use in practice. The therapeutic clinical success of splints has to be viewed from this perspective. A splint that is not tested for its clinical efficacy at clinical control investigations in intervals of a few months will fail to serve its purpose in clinical use or scientific studies.

Hence I believe a basic change of strategy is needed. One should not focus on obtaining evidence of the superiority of a specific type of splint. Rather, scientific studies should focus on individualisation of a splint concept. Questions such as whether it would be better to fix a splint in the maxilla or the mandible, with or without a guidance concept, with or without occlusal impressions etc. would then be raised – but only from the patient's viewpoint. I personally use splints in the maxilla as well as (preferably) the mandible. Some splints have a concept of guidance whereas others do not. Yet others are modified in this regard during therapy. The vertical dimension is created individually and not decided upon by a basic operating instruction to the patient. Even occlusal impressions may vary as they are adjusted to the patient's individual needs and condition.

I am unable to provide a name for "*my*" splints. I belong to a school that did not consider it essential to add a further name to the long list of splints. I had and have a teacher who always gave/gives prime importance to the patient's individuality and still does so. I have never learned anything but to adjust the therapeutic crutches to the patient and not demand of the patient that he or she adapt to a standard model.

I think the current issue of IJSOM will be able to answer some of our readers' questions on the subject of splints – certainly not all of them. In any case I am convinced that you will find a large amount of information, which may well serve as a basis for further discussion. I would like to invite all of our readers to utilise the communication forums, namely: Letter to the Editor and Letter to the Author. Advances in science and advancements in our speciality can be achieved only by our active exchange of viewpoints. Each of us is called upon to participate in the exchange.

Gregor Slavicek
E-mail: gregor.slavicek@stw.de

