

## Let's think in a more interdisciplinary manner



Werner Schupp

Interdisciplinarity is an integral part of orthodontics. In older orthodontic textbooks, we read about cooperating with ear, nose and throat specialists when dealing with young patients with impaired nasal breathing, about speech therapy and myofunctional therapy, and about orthopaedic connections to posture. There are also many reports on pre-prosthetic orthodontics. For many years, we have been writing and teaching about cooperation between aesthetic dentistry and orthodontics.

Let me now focus on interdisciplinary cooperation with restorative dentistry. This is not only about opening or closing gaps or resolving crowding. Let's think in a more complex way, as complex as is necessary for many interdisciplinary treatments. Patients do not only suffer from tooth loss, loss of tooth structure or aesthetic impairments. Many have lost their occlusion and thus their skeletal relationship, and this is what makes the situation so complex. We have to diagnose, plan and then perform dental and skeletal treatment, and we have to do it as a team, made up of the restorative dental practitioner and the orthodontist.

It would be so simple if it were sufficient for the patient to leave our orthodontic practice with well-formed dental arches in an Angle Class I relationship. Unfortunately, this does not address the vertical dimension of occlusion, the relationship of the occlusion to the condylar position, the joint space, and therefore the function of the temporomandibular system. The overall planning of these treatments requires a complex diagnosis that should be discussed be-

tween the dental practitioner and the orthodontist. We can only treat what we see. If we do not look at the complex temporomandibular system in its individual components, we cannot analyse its aberrations. At best, we can leave them as they are, but often we can make them worse.

I would like to draw two conclusions from this admittedly simplified presentation. First, we should engage in discussions about interdisciplinary diagnosis, planning and treatment more often. How frequently do we convene with other orthodontists and with restorative dental practitioners? I think it is necessary that we meet for seminars and congresses and share experiences. The approach taken at the World Dental Meeting held in Yokohama, Japan in October this year with 680 speakers from all areas of dentistry was desirable, but a translation of the lectures or indeed the content in general into English would be necessary, as well as a joint session. Unfortunately, I still find that generalists know very little about what we as orthodontists can do and how we can support their work towards complex, less invasive treatment. Equally, we often do not know what specific orthodontic pre-treatment the generalist is requesting, especially since restorative dentistry is undergoing what I consider to be rapid digital development, which is a path we are also taking right now, and we can combine our digital possibilities with those of the generalists.

This brings me to my second point, concerning digital dentistry. In aligner orthodontics, we have achieved a fully digital workflow. Our aligner treatment is based on full

digital planning in a virtual treatment simulation. The missing link, the virtual articulator, and thus the allocation of the occlusion to the skeletal position, are accessible. There are at least two procedures that allow us direct access to the joint space, the so-called "centric relation". Orthodontic treatment can now be started with the aim of ultimately achieving an occlusion that goes hand in hand with a physiological joint position. From an interdisciplinary perspective, this is another advantage as we can share these data with our restorative colleagues. We do not need to keep reinventing the wheel: we leave the physiological joint position from aligner orthodontics and transfer it digitally to restorative dentistry.

To all our colleagues, readers and editors and all the Quintessence team, I wish you a merry Christmas and a

happy new year, a year in which we hope the wars of this world and the suffering of the people affected can be ended.

I also hope that we will have the opportunity to meet for an interdisciplinary exchange of ideas and to share the fantastic virtual possibilities that aligner orthodontics offers, digital analysis of the temporomandibular system and the digital world of restorative dentistry.

A handwritten signature in black ink, appearing to read 'Werner Schupp', written in a cursive style.

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