Mutlu Özcan

INTERVIEWERS:

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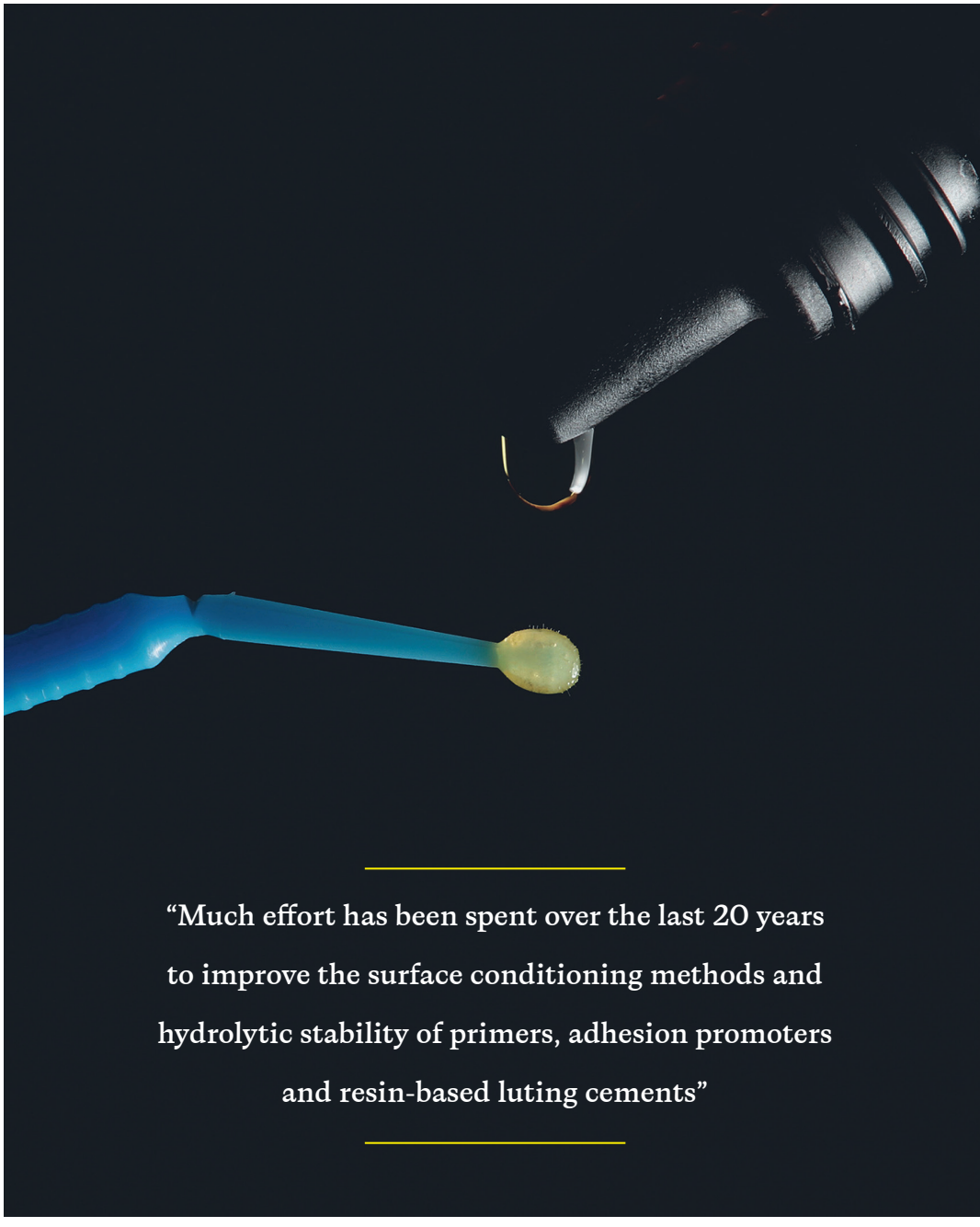
1

You were awarded the IADR Research Productivity Award in 2018 (Distinguished Scientist Award). What did this recognition mean for you personally and for your career?

(Sergio Eduardo de Paiva Gonçalves)

Indeed, in 2018 I have received the prestigious award "IADR Distinguished Scientist Wilmer Souder" during the 96th annual meeting of the International Association for Dental Research (IADR) in London, United Kingdom. For those who are not familiar, this award is given after a selection process by the most eminent scientists in the field

of Dental Materials, as recognition and appreciation of the candidate`s contribution to dental materials research. And typically, this award is given towards the end of a career. Receiving this award was a great honour for me but receiving it at the age of 49 was for me even more meaningful. According to QS Ranking and Shanghai Ranking criteria, the IADR Distinguished Scientist awards are considered as the "Nobel Prize in Dentistry" which certainly is an added value to the awardee`s affiliation. This has also helped my current affiliation, namely University of Zurich is positioned higher at such rankings after this award. The award also received much attention from press which surprised me greatly. Needless to say, I devote this award to all my collaborators worldwide who contributed significantly to the abundant number of publications and thereby contribution to fundamental and translational dental materials science. Therefore, a big acknowledgement goes to my global collaborators!



"Much effort has been spent over the last 20 years to improve the surface conditioning methods and hydrolytic stability of primers, adhesion promoters and resin-based luting cements"

2

We know that you work as an editor in several major journals such as Dental Materials for example, and in other developing journals, such as the Journal of Adhesion Science and Technology and Brazilian Dental Science. What is your opinion about the quality of science produced in Brazil and how is it represented in these journals?

(Sergio Eduardo de Paiva Gonçalves)

I am on the editorial board of numerous peer-reviewed dental journals. I strongly believe that high quality peer-review is essential for the advancement of unbiased, hypothesis driven, high-quality science and dissemination of knowledge. Such editorial positions at these journals allow me of course to observe the performance of Brazilian researchers and I can easily state that especially during the last two decades, the quality of science be it clinical, translational, in basic science field, systematic reviews or meta-analysis evolved considerably in Brazil. Likewise, international conferences are visited largely by Brazilian scientists. The motivation of mentors, researchers who also have profound clinical experience along with government support are possibly the reasons for this achievement. Brazil should be proud of this accomplishment.

"... in particular zirconia RBFDP, should be first air-borne particle abraded and ultrasonically cleaned...".

3

Do you believe that big journals are prejudiced against the publication of works from countries considered underdeveloped or under development? (Sergio Eduardo de Paiva Gonçalves)

Ideally, peer-review should not be influenced by any kind of prejudice or bias, and most importantly, peer-review should run blinded to the names and affiliation of the authors. I do not think that high-quality science could be rejected by any journal. Unfortunately, sometimes we do observe publications published through connections or rejected due to conflict of interest. In this case, the authors should communicate the conflicting issues with the editor-in-chief or submit their manuscript to another publication venue. If such a misconduct occurs systematically in a journal, in the long run both the reputation of the journal and the editor-in-chief will be jeopardized. Science is global and regardless of our ethnical background, honestly reported research findings and sound knowledge should be published in peer-reviewed journals.

4

What is your recommendation for the youth who is starting his research career?

(Sergio Eduardo de Paiva Gonçalves)

We do research in order to find a solution to a health-related problem in medical sciences. Sometimes we also try to solve a problem in laboratory settings. Nevertheless, I would advise young researchers to notice the real clinical problem, confirm the problem by asking other peers, read the literature critically, study the mechanisms, ask why and how type of questions repeatedly to understand the mechanisms, set hypothesis based on rationale, master elegant study designs for experiments, report the findings honestly and ask both at the beginning and throughout their career to her/himself what societal impact does his/her research make.

5

Do you agree that adhesion of resin cement to zirconia is no longer a problem?

(Marcelo Giannini)

If we look at the literature on the long-term clinical success data of up to 10 years, debonding of resin-bonded fixed dental prosthesis (RBFDP) is still an issue in the posterior region while in the anterior, survival rates seem favourable. However, when the power and study design of these clinical studies are critically evaluated, these reports are not free of failures reported either at the early phase or long-term function of about 5 years or more. In some clinical trials, rebonding is considered as functional success and thereby only survival rates are reported. Much effort has been spent over the last 20 years to improve the surface conditioning methods and hydrolytic stability of primers, adhesion promoters and resin-based luting cements. However, for me clinically speaking, adhesion alone is not responsible for failures of zirconia RBFDPs. The high stiffness of this ceramic, adhesion surface area especially on the palatal side, torque forces in the canine region, deep-bite situations, connector diameter and lack of meticulous application of adhesion protocol all come into play in failures of RBFDPs.

6

What is your method/protocol to treat an indirect zirconia restoration for cementation?

(Marcelo Giannini)

Based on the best available systematic reviews and meta-analysis, the following protocol could be suggested: The cementation surface of the zirconia reconstruction and in particular zirconia RBFDP, should be first air-borne particle abraded and ultrasonically cleaned. Then, 10-Methacryloyloxydecyl dihydrogen phosphate (10-MDP) containing primer should be applied and wait for its reaction with the surface. Finally, the reconstruction should be cemented using 10-MDP containing chemically polymerized luting cement.

More details of the protocol could be found in:

Özcan, M. Air abrasion of Zirconia Resin-bonded Fixed Dental Prosthesis Prior to Adhesive Cementation: Why and How? Journal of Adhesive Dentistry 2013;15:394.

Interviewers

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