



Adhesion to zirconia: from the conventional to the highly translucent

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Zirconia ceramic has been widely used in dentistry, mainly thanks to its remarkable mechanical properties and superior biocompatibility. Currently, conventional 3 mol% yttria-stabilized tetragonal zirconia polycrystal (3Y-TZP) enables to fabricate dental crowns and long-span-bridges. However, the opaque nature of 3Y-TZP limits its application for anterior restorations. The recent highly translucent zirconia is breathtaking and can be closely mimic the translucency of natural teeth, due to a higher yttria content producing 4 mol% or 5 mol% partially stabilized zirconia. Bonding performance is an essential factor for the success and longevity of ceramic restorations. This urges the need to optimize the bonding strategy. Therefore, this lecture will help researchers and practitioners to have better understanding for conventional and high translucent zirconia bonding, in a way of presenting latest experimental results and typical clinical cases.

<Biography>

Cui Huang is Professor and Director in the Department of Prosthodontics at Wuhan University. Dr. Huang graduated with BDS, MD and PhD degree from Wuhan University and earned a MDS degree from the Faculty of Dentistry at the University of Hong Kong. She is currently committee member of IADR General Session Committee and the treasurer of IADR Chinese Division. She is a guest professor from 2020 to 2022 in Tohoku University and the honorary Professor from 2021 to 2023 in the Faculty of Dentistry of the University of Hongkong. Currently, she serves as an editor of National Undergraduate Textbook “Prosthodontics” (7th, 8th version) and Postgraduate Textbook “Fixed Prosthodontics”, as well as Vice Chairman of Prosthodontics Division of Chinese Stomatological Association and Chairman-elect of Esthetic Dentistry Division of Chinese Stomatological Association. She successfully won 7 Research Grants from National Natural Science Foundation of China from 2004 to 2020. Additionally, she published more than 60 international peer-reviewed papers as first author or corresponding author and has awarded 3 Chinese invention patents and over 10 Chinese utility model patents.