Ceramic materials used in dental restorations have evolved significantly over the last 20 years. A review of the latest materials and their clinical use was presented last weekend at an international symposium organised by dental manufacturer Ivoclar Vivadent in the German capital of Berlin. Opinion leaders and renowned clinicians from all over the globe attended the one-day event, held by the specialist company from Liechtenstein in this form for the first time. Under the theme “All-ceramics meets implant aesthetics”, they presented results from clinical studies and experiences from practice, demonstrating current applications and the potential of full-ceramic restorations fabricated using Ivoclar Vivadent’s IPS e.max all-ceramic system.

Introduced to dental markets over a decade ago, the system covers a wide range of indications, from thin veneers used in single-tooth restorations to crowns and wide-span bridges. According to Ivoclar Vivadent Chief Sales Officer Josef Richter, it is currently available in lithium disilicate and zirconium oxide and can be used for the press technique, as well as CAD/CAM technology.

Prior to the presentations, a round-table discussion, joined by Dr Christian Coachmann from Brazil and Dr Kenneth A. Malament from the US, among other experts, discussed different indications for dental ceramics and the long-term success achieved using such ceramics. The selection of materials was given particular attention and most participants agreed that this has a significant impact on clinical success. Dr Manfred Kern from Germany, for example, presented a new study conducted on patients in Germany, demonstrating that success rates of three-unit fixed dental prostheses (FDPs) made from e.max monolithic lithium disilicate were comparable to those of conventional metal-ceramic FDPs. Similar results from studies involving the material were presented by Prof. Van P. Thompson from New York University’s Department of Biomaterials and Biomimetics.

“If we do not understand how to select the right material, it will be difficult to achieve any type of success,” remarked Prof. Nitzaan Bichacho, head of the Ronald E. Goldstein Center for Aesthetic Dentistry in Jerusalem in Israel, who discussed parameters for durable and aesthetic tooth- and implant-supported restorations.

Other topics included treatment planning for complex implant-prosthetic restorations and communication aspects with regard to treatment procedures. In addition, Dr Yukio Kusama from Tokyo in Japan presented a new abutment design made from lithium disilicate press ceramics that is said to combine perfect biological function with better aesthetics.