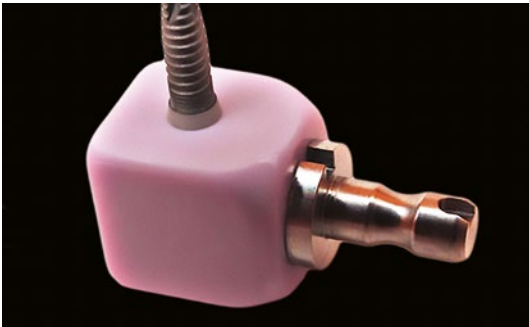
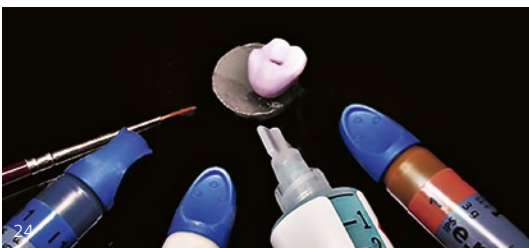




21 | Pre-drilled e.max block.

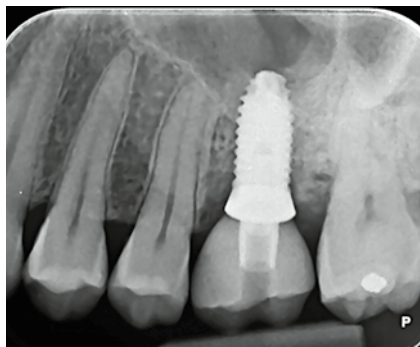


22 | Precision fit with the Z1 implant.



23 | The crown is milled ... 24 | ... and finished.

Using digital design software, the work area was reduced to the immediate region of the implant (Fig. 18), while both arches were put into the virtual articulator to check occlusion (Figs. 19a and b). The restorative design was performed on the virtual implant (Figs. 20a and b). The software is very intuitive and automatically recognizes the type of implant solution used. The restoration was then fabricated from an IPS e.max bloc (Ivoclar Vivadent, Schaan, Liechtenstein) and the final touches were made (Figs. 21 to 24).



25 | Screw-retained crown in the patient's mouth.

26 | The screw-hole is filled with composite.

27 | Post-treatment radiograph.

28 | Creeping attachment of gingiva after six months of crown placement.

29 | Papilla repositioning ...

30 | ... and final restoration after six months of crown placement.

The comparison between a tissue level surgical technique versus a bone level surgical technique shows a considerable advantage. In this case, the CAD/CAM-fabricated crown is fixed directly on the implant platform. However, if we had to opt for a bone level surgical technique, this same crown would have been cemented onto the shoulder of an abutment. The selected surgical technique is therefore much less invasive for soft tissues. On the one hand, it does not constrain or mobilize the gingival tissues once the implant has been placed, and on the other hand, zirconia has aesthetic and antibacterial properties superior to titanium. In this technique, the combination of using a zirconia collar at soft tissue level and a CAD/CAM-fabricated crown ensures a ceramo-ceramic con-

tinuity, significantly improving the aesthetics of the restoration.

The final restoration was screwed into place with a torque of 30 Ncm (Fig. 25). Composite was placed to fill the screw access hole and complete the occlusal surface of the crown (Fig. 26). Figure 27 shows the post-treatment radiograph, Figures 28 to 30 demonstrate papilla formation and creeping attachment along the emergence profile after six months of crown placement.

Discussion

A wider platform implant was used in this case, as this was appropriate for restoring a molar tooth. It creates a more natural-looking soft tissue emergence profile and this in turn makes oral hygiene easier to achieve for the patient in the long-term.

The author only uses a zirconia collar height of 2.5 mm, as this is the ideal size to ensure that it remains 1 mm below the periodontal tissue. The zirconia collar provides a natural barrier to infections as the gingiva adheres to it, protecting the implant, the bone, the gum and therefore, the overall restoration [11]. All of this together ensures the long-term stability and survival of the dental implant. ■

The references are available at www.teamwork-media.de/literatur

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