Monolithicabutments,Part 2

1The Zeramex product family

Klaus Pettinger and Wolfgang Weisser want to motivate their dental technician colleagues to produce individual abutments. In their short series of articles they show why this is worth it. The second part of her case report deals with the exposure, the impression and the insertion of the individual abutment.

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A perfectly healed healing abutment (Fig.**2**) is the basic requirement for the further work steps. Our patient's gingiva is in top shape, no irritation can be seen.

The procedure in the dental practice

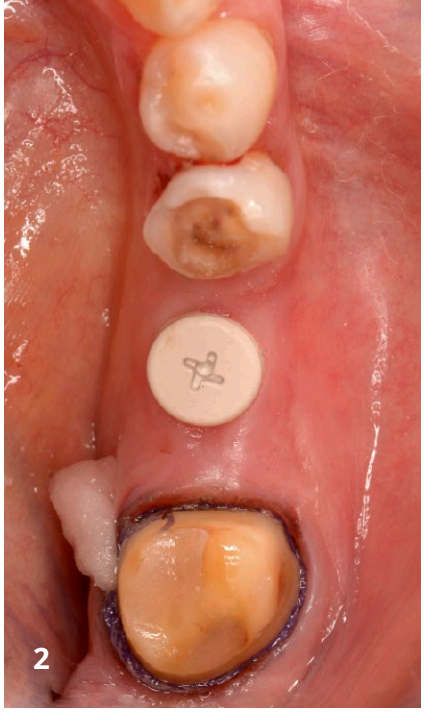
Treater Dr. Michael Schneider begins preparations to remove the metal renovations, inlays and cast crowns (Fig.**3**) and to create any build-up fillings. The threads are placed according to protocol to create a perfect preparation for the all-ceramic reconstructions.

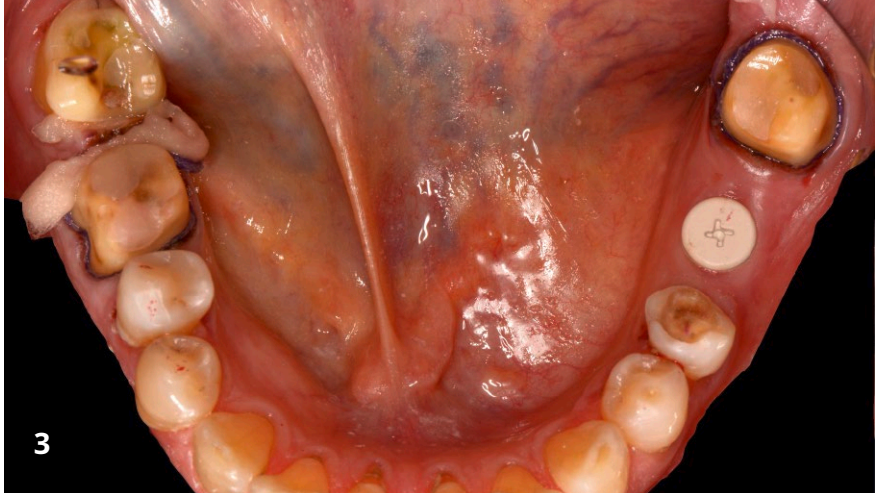
When preparing for the impression, gingiva management requires a single-thread technique with astringent retraction paste, because the optimal representation of the preparation ration limit is of fundamental importance. The Transfer Open Tray WB37510 impression post can now be inserted (Fig.**4**and**5**). An exemplary variant is to use this temporary abutment (Fig.**6**) to produce an individual healing abutment.

After the impression has been taken (Fig.**7**) the stitches are removed, everything is cleaned and the patient is again provided with temporary restorations (Fig.**8th**).

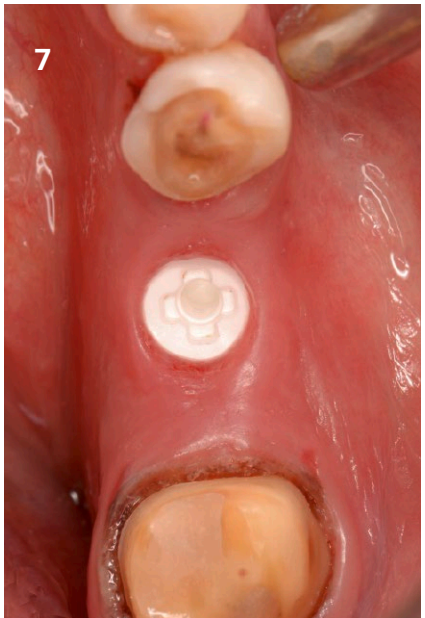
The procedure in the laboratory

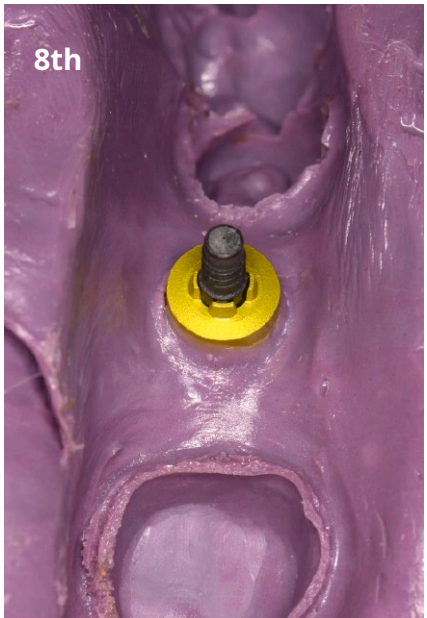
The impression is prepared for the master model and the model analogue WB37522 Digital Implant Replica is screwed into the impression and checked again before the master model is made with a removable gum mask (Fig.**9**). Another important step is the wax-up

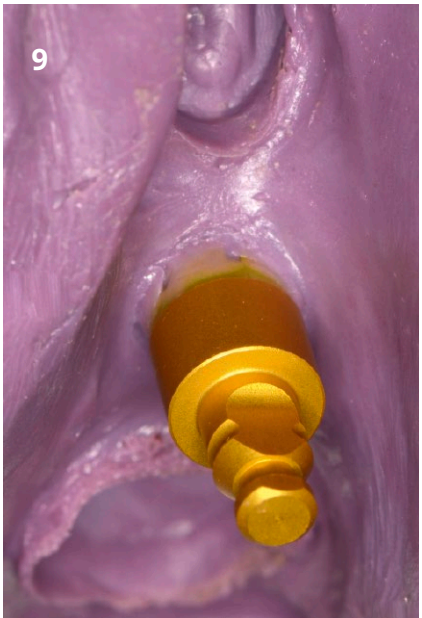


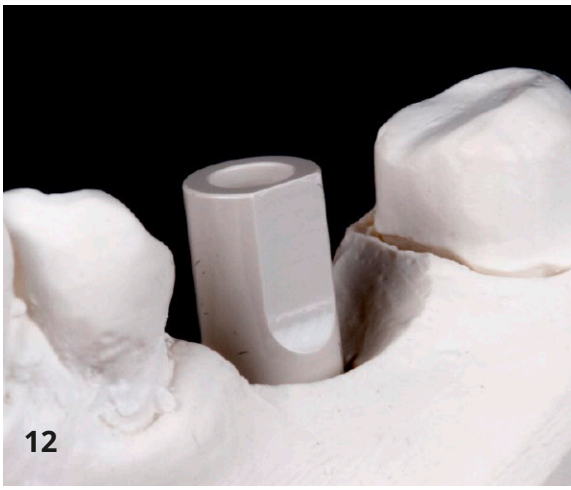


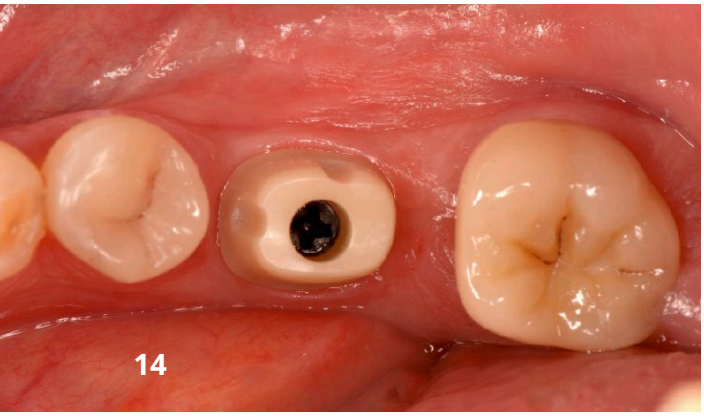
2Healed healing abutment**3**Preparations for removing metal restorations, inlays and cast crowns **4**and**5**Impression post transfer open tray WB37510**6**The temporary abutment can be used to create an individual healing abutment**7** and**8th**Situation after the impression has been taken**9**WB37522 Digital Implant Replica



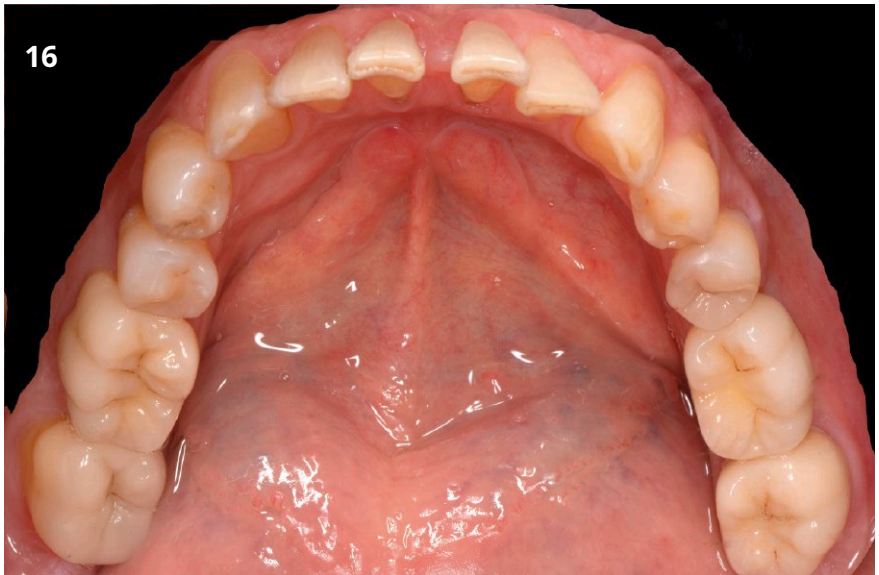


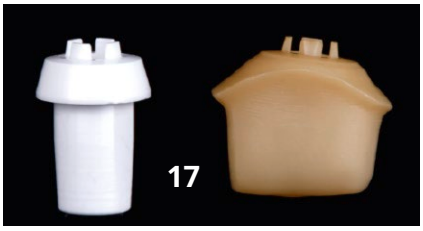


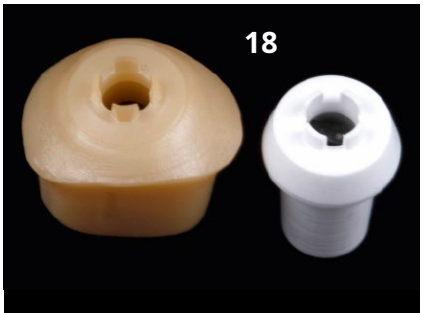




10and**11**Wax-up – the basis of successful work**12**Scanbody for digital impressions**13**Individual abutment**14**XT Vicarbo screw, reversibly fixed with a torque of between 20 and 25 Ncm**15**IPS e.max crown on monolithic abutment**16**All-ceramic reconstructions in situ**17**and**18**Standard abutment with 2 mm gingiva height and the individual alternative – a must have!







Planning basis for the successful and targeted implementation of the work (Fig. **10**and**11**). The scan body is then used for digital impressions (Fig.**12**) scanned – There is a separate scanbody for each implant diameter. This happens either chairside or in the laboratory. In the case shown, the variant is selected via the laboratory scanner. The construction is carried out in a known manner, the STL data is sent to Zeramex Digital Solutions.
After fabrication, a flawlessly manufactured individual abutment arrives (Fig.**13**) back to the lab.

assessment

In our opinion, every implant placed should be treated with an individual abutment. This guarantees the important emergence profile and allows you to design an optimal position for the cementation joint. The main feature of an individual abutment is the adjustment of the required profile diameter of the prosthetics as well as the step at the level of the gingival margin. A dreaded problem is so-called cementite, which can occur if prosthetics stick together on ground teeth or abutments 3 to 6 millimeters subgingival and it is proven that these cannot be removed without leaving any residue. The soft tissue profile of a custom abutment should ideally be pre-shaped by a custom healing abutment. Before screwing, it is extremely important to place the abutment on the implant platform until the gingival counterpressure is released in order to insert the Vicarbo screw. The abutment is expressly not screwed onto the implant with the Vicarbo screw while simultaneously displacing the gingiva, but is screwed in after placement. After checking all parameters, the XT Vicarbo screw is reversibly fixed with a torque of between 20 and 25 Ncm (Fig.**14**). This can now be easily solved in dental technology, and the dentist has no stress when fixing it. So far It was possible to work with standard abutments - a procedure that we consider questionable for the reasons mentioned. Alternatives are individual abutments that are glued or soldered.
In figure**14**You can clearly see the individual abutment from Zeramex Digital Solutions: The level is exactly above the gingival level, and the practitioner has no problems attaching it or removing and cleaning the adhesive joint. It should be so! The patient is happy about a long-lasting denture.
The inlay and the monolithic full crowns were created with IPS e.max and placed onto the individually manufactured monolithic abutment without any difficulty (Fig.**15** and**16**).

Conclusion

The photos (Fig.**17**and**18**) clearly show the difference between the standard abutment with a 2 mm gingival height and the individual alternative, a monolithic abutment from Zeramex Digital Solutions. The latter is the “must have” for high-quality implant care. This offers the practitioner a clear advantage when it comes to fixation.
The spatial design of the gingiva and the emergence profile speak for an individual abutment. Food residue slides off like a natural tooth and does not linger in niches, which can lead to bad breath.
Cleaning is also possible and long-term clinical success is also assured.
As close to nature as possible – an individual abutment made of full zirconium meets this requirement in every respect. It has no adhesive level and is the best for the gingiva.

thanksgiving

Our special thanks go outDr. Michael Schneiderfrom Schorndorf. He gave us the opportunity to document this case with the monolithic abutment. A thank you also goes out to the patient patient!

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