

User Case Abstract

Confident decision-making in treating dental traumas

Digital Volume Tomography (DVT) can be incredibly helpful in cases involving trauma where many variables exist. Having the ability to see structures surrounding the injuries is a benefit enabling a more informed treatment plan. The following case study details the diagnosis and treatment of a 31-year-old patient who had suffered traumatic injuries from a surfing accident.

Methods

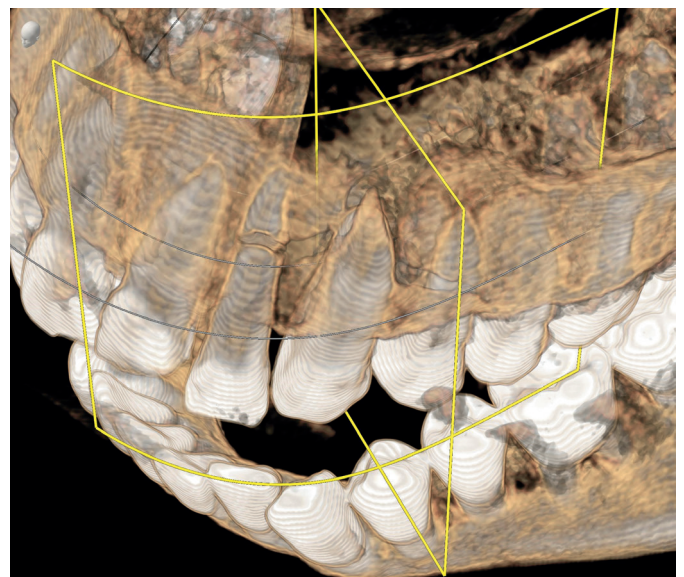
The authors used DVT to aid with diagnosis utilizing an Orthophos SL. The patient chose a course of treatment involving a free-end bridge rather than an implant. A fiber-reinforced splint was used during the initial healing period. After six weeks, the authors used a CEREC camera to make an optical impression and sent this to an external lab which they used the CAD/CAM data to prepare and mill a bridge for the patient.

Case Study

After a surfing accident, a 31-year-old patient came to our practice for emergency treatment. He had a number of obvious visible traumas but in order to properly assess the damage we used DVT, which revealed that tooth 22 had a vertical fracture from the middle to the apical root. Tooth 23 had a lateral luxation injury and the scan also revealed a fracture of the buccal bone plate such that the top edge was no longer in contact with



Dental trauma the patient suffered from a surfing accident.



Diagnostic findings from the first DVT.



Thanks to a clear diagnosis it was possible to restore the maxilla.

the alveolar bone. Additionally, it was visually apparent that the patient had trauma in the form of lesions to the upper and lower lip mucosa, minor splintering of the incisal edge of tooth 11, and a crown fracture with exposed pulp of tooth 21.

The treatment plan was executed mainly over the course of three sessions. The first to diagnose the patient's injuries as described above as well as to suture the lesions, perform a root canal on teeth. During the first session we also did a temporary reconstruction on tooth 11, reconstructed tooth 21 and removed tooth 22. The patient could have chosen an implant as a course of treatment but instead opted for a free-end bridge. Therefore, we made a pontic for the removed tooth 22 and built a fiber-reinforced splint to secure teeth 21-24. The patient wore this splint for six weeks before returning to continue the restoration.

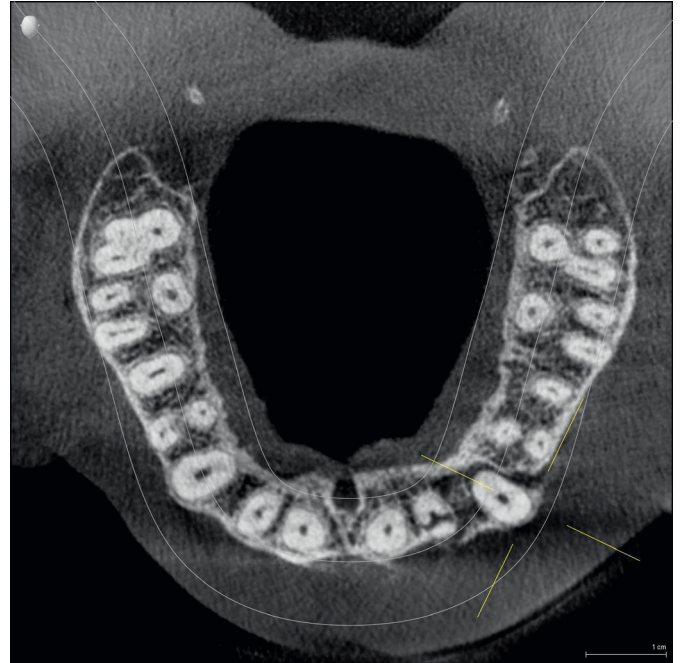
A follow-up DVT at the second visit confirmed that the bone-healing progress was going as planned and the team took an optical scan using a CEREC Omnicam. The data went to Shane Hanson at Di-Ceram laboratory to process and mill the bridge.

Results

The third session took place a week later where the patient received a milled and manually veneered bridge as a long-term temporary restoration while the final restoration was made with an e.max. The treatment yielded an aesthetically good result.

Summary

DVT using the Orthophos SL played an important role in this trauma to help our team properly diagnose the damage that the patient suffered. 3D imaging both simplifies and gives more confidence in the process of creating a treatment plan in such a case.



The Orthophos SL slice image very clearly shows the fracture of tooth 22 and the displacement of tooth 23.

Contact

Günther Schmidhuber
PR Manager
+43 662 2450566
Guenther.Schmidhuber@dentsplysirona.com

Author

Dr. Kaveer Ratan and Dr. Clifford Yudelman
Optismile advanced dentistry and Implant Centre
Suite 303 The Point Mall
76 Regent Rd, Sea Point, Cape Town, 8005

Copyright

Original printed in: Dentsply Sirona brochure
Orthophos SL – as versatile as practice life.
Cases in practice. Page 20-21

Marketing Hub

Text und Bilder zu finden unter: XXXX