

Long-term stable peri-implant hard and soft tissue after immediate implant placement: First data from a new implant system

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Equivalent contribution

Goal

Immediate implantations have established themselves as a reliable treatment option in recent years. It is possible to achieve comparable survival rates with a low complications if a few essential prerequisites are observed, such as the preservation of the bony alveolus. The aim of the present study was to examine, for the first time, a new Morse locking implant system which has features that promote the success of immediate implant placement.

Material and methods

In the present retrospective study, 21 patients who had received 50 implants (C-Tech Implants Esthetic Line, C-Tech Implants, Bologna, Italy) in the past three years immediately after the extraction of teeth in the upper and lower jaw that were not worth preserving, were clinically and radiologically re-examined. After 2 years, the condition of the peri-implant hard and soft tissue (width and thickness of the buccal peri-implant gingiva, probing depth (ST), bleeding on probing (BOP)), as well as the red-white aesthetics (Pink Esthetic Score (PES)) and the stability of the peri-implant bone were examined.

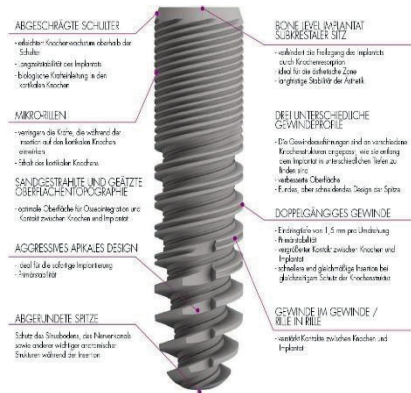


Fig. 1:

C-Tech Esthetic Line implant system:
- Platform switching
- Screw-cone connection
- Morse locking conical connection
- Bevelled shoulder
- 3 different threading guides
- Aggressive apical threading
- Etched surface topography

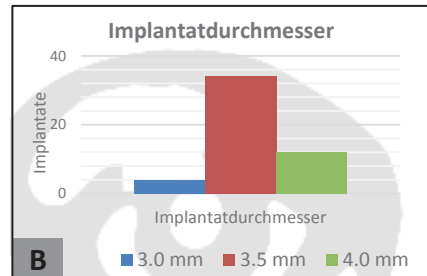
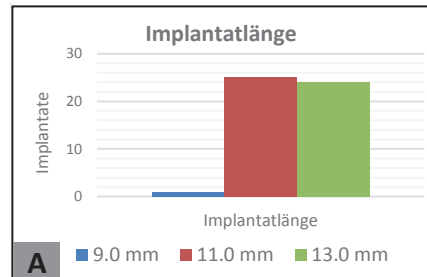


Fig. 2 A and B:

Implant lengths and diameters of the inserted implants

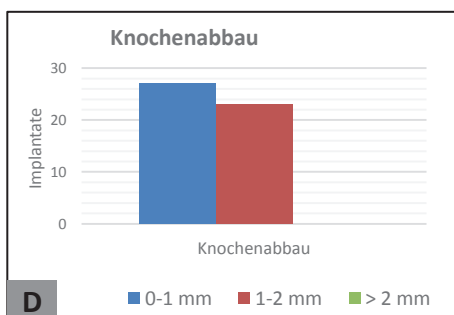
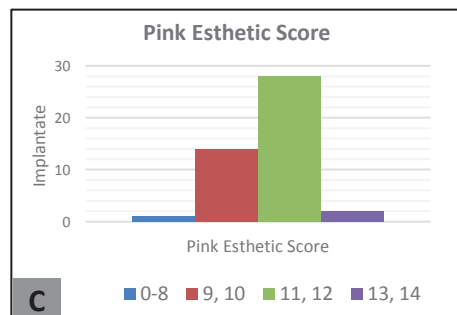
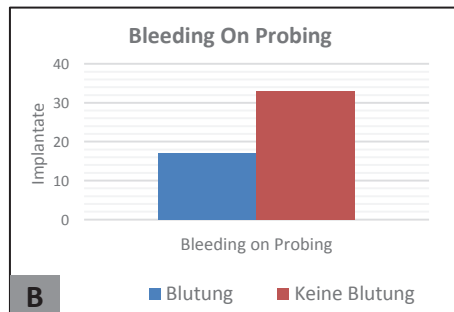
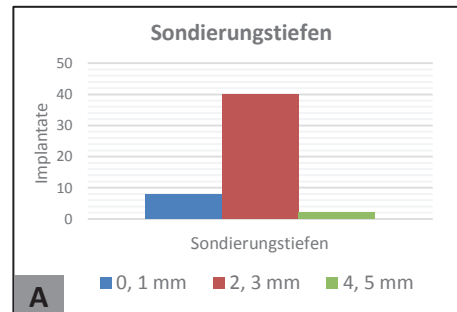
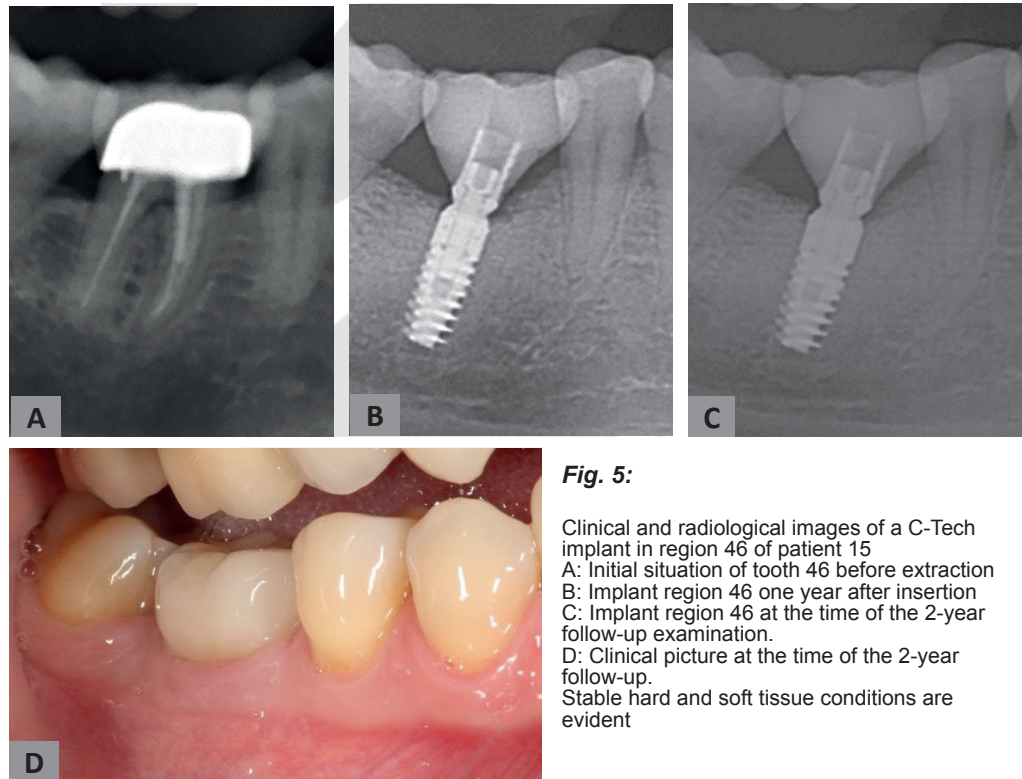


Fig. 3:

Results of the clinical and radiological 2-year follow-up
A: Probing depths 2 years after implantation
B: Bleeding on probing 2 years after implantation
C: Pink Esthetic Score 2 years after implantation
D: Bone loss 2 years after implantation



Results

During the study period of 2 years, there was no loss of the implant, loosening of the implant or acute infections in the area of the peri-implant tissue. All implants had an adequate supply of attached peri-implant gingiva, a stable attachment with ST of 2.25 mm and BOP of 34% on average. The peri-implant bone was also stable at the radiological 2-year follow-up, with a mean reduction of 0.83 mm.

Conclusion

The examined new Bone Level System with a rough surface, a conical implant-abutment connection and a progressive threading was able to contribute to a satisfactory clinical result with immediate implant placement after a two-year observation period. Both the peri-implant hard and soft tissues were stable, with no evidence of peri-implant infection or bone loss.