

9-Year Results of a Prospective Case Series Study Demonstrate Positive Long-Term Outcome With INICELL® surface

Molinero-Mourelle P et al, Clin Implant Dent Relat Res. 2024;
Online ahead of print



Background



INICELL® is a superhydrophilic implant surface from Thommen Medical that is a chemical alternation of a sandblasted and thermal acid-etched surface.

The increase of implant surface energy positively affects:

- ✓ Wettability
- ✓ Protein affinity
- ✓ Osteoblast adhesion

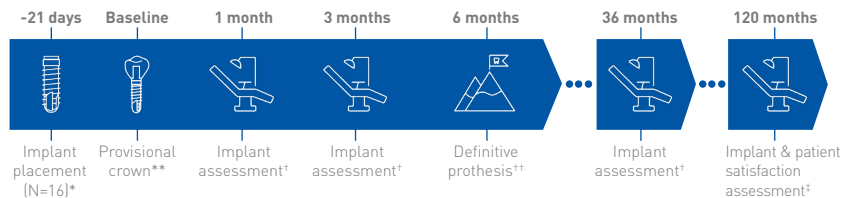


Aim



Evaluate the clinical and radiographic performance and patient satisfaction of early loaded ELEMENT RC INICELL® implants and its prosthetics in partially edentulous mandibles

Study Design



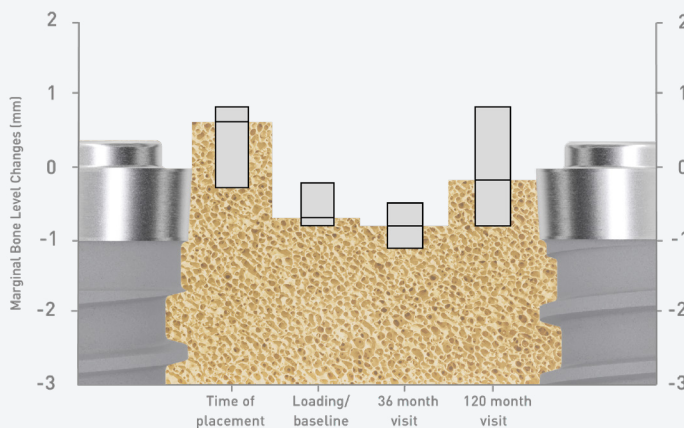
Average follow-up time: 9 years 7 months

Results



Stable marginal bone levels, no biological complications, high patient satisfaction, and 100% survival rate over 9 years

Stable radiographic marginal bone levels (N=16)**



Marginal bone levels were significantly higher at 120 months compared to 36 months

No biological complications

mPI: 0.03 | mSBI: 0.31 | PPD: 2.95

Mean values at 120 months (N=16)

High patient satisfaction

0 | 9.42 | 10

Mean value at 120 months (N=16)

Excellent implant and prosthetic survival rates 100%

Key Takeaways



This prospective observational case series study...

- ✓ ... demonstrates stable marginal bone levels, no biologic complications, 100% implant and prosthetic survival and high patient satisfaction with ELEMENT RC INICELL® implants over 9 years
- ✓ ... confirms the favourable outcomes with the superhydrophilic INICELL® surface from Thommen Medical

*36 month results have been published previously [Hicklin SP et al, Int J Oral Maxillofac Implants. 2020; 35:1013–20]. Of originally 15 patients (21 implants), 12 (16 implants) were included in the present analysis. 3 patients could not attend the clinical evaluation **The implant stability quotient (ISQ) was ≥ 70 for all study implants before loading †Implant assessment was performed with standardized radiographs, measurements of mPI, assessment of mSBI, and PPD ††Porcelain-fused-to-metal prostheses ‡‡The 120 month follow-up was assessed by an independent clinician who was not involved in any of the previous appointments ††† Median and the interquartile range are represented. Data shown is a mean of mesial and distal bone levels.
 MPI, Modified plaque index; mSBI, modified sulcus bleeding index; PPD, probing pocket depth, RC, regular collar.