

3-Year Results of a Prospective Case Series Study Highlight Positive Clinical Outcomes With INICELL® Surface

Hicklin SP et al, Int J Oral Maxillofac Implants. 2020; 35:1013–20

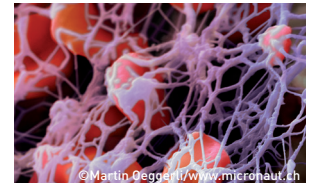


Background

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

The increase of implant surface energy positively affects:

- ✓ Wettability
- ✓ Protein affinity
- ✓ Osteoblast adhesion

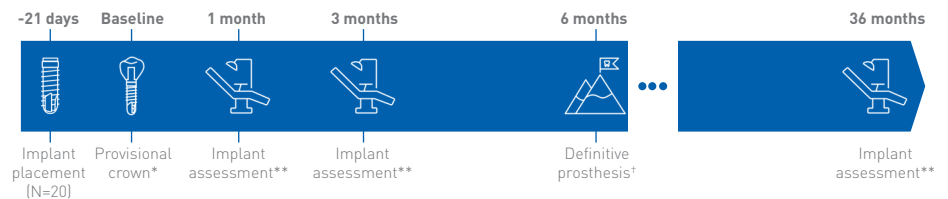


Aim

Investigate the efficacy of early loading of SPI®ELEMENT RC INICELL® implants in the posterior mandible of partially edentulous patients



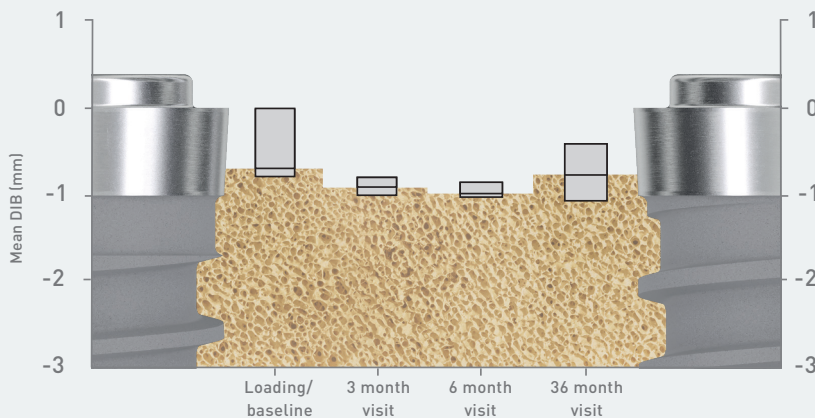
Study Design



Results

Stable marginal bone levels, healthy soft tissue, and excellent survival rates over 3 years

Stable radiographic marginal bone levels (N=20)**



After an initial remodeling process, median bone levels stabilized slightly above the smooth-rough border after 3 years.

Healthy soft tissue



Median values of mean measurements at 36 months (N=20)



mPI: 0.25

mSBI: 0.25

PPD: 4

Excellent implant survival 100% [20/20]



Key Takeaways

This prospective observational study over 3 years...

- ✓ ...demonstrates stable marginal bone levels, healthy soft tissue, and 100% implant survival with SPI®ELEMENT RC INICELL® implants
- ✓ ...confirms favourable outcomes with the superhydrophilic INICELL® surface from Thommen Medical

*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 ††Median and the interquartile range are represented. Data shown are a mean of mesial and distal bone levels. Original graph was slightly modified for presentation reasons. The initial bone remodelling process between implantation and loading is not shown. On average, implants were placed subcrestally with the implant shoulder 0.5 mm inside the bone (median value). DIB, distance implant-bone; mPI, modified plaque index; mSBI, modified sulcus bleeding index; PPD, probing pocket depth, RC, regular collar.