

# CHAMPIONS

## Hinweis in eigener Sache

Auf den folgenden Seiten finden Sie die Studie über das Keramikimplantat **ZV3**. Dieses Implantat wird seit 2018 von uns, Champions-Implants GmbH, unter dem Produktnamen **Patent™/BioWin!** vertrieben. Wir weisen daraufhin, dass dieses Implantat völlig identisch mit dem in der Studie erwähnten Implantat ist – inkl. der Produktion und dem Zubehör.



## ***Clinical performance of 2-piece zirconium implants in the posterior mandible and maxilla. A prospective cohort study over two years.***

### ***Manuscript submitted for publication.***

#### **Investigators**

Principal Investigator: Prof. Dr. J. Becker  
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#### **Aim of the Study**

To assess the clinical performance of customized 2-piece zirconium implants (ZV3 - Zircon Vision GmbH, Wolfrathausen, Germany) over a period of up to 2 years.



#### **Study Design at a Glance**

**Design:** Prospective cohort study with 60 patients over a period of two years.

**Primary Outcome:** Survival rate.

**Secondary Outcomes:** Biological, technical and mechanical complications.

**Materials:** 2-piece zirconia implants restored with fibreglass abutments (ZV3, Wolfrathausen, Germany)

**Number of calibrated examiners:** 2

**Evaluation Criteria:** Plaque Index (PI), bleeding on probing (BOP), probing depth (PD), mucosal recession (MR), implant mobility, active matrix-metalloproteinase-8 (aMMP-8), fractures of implant or abutment.

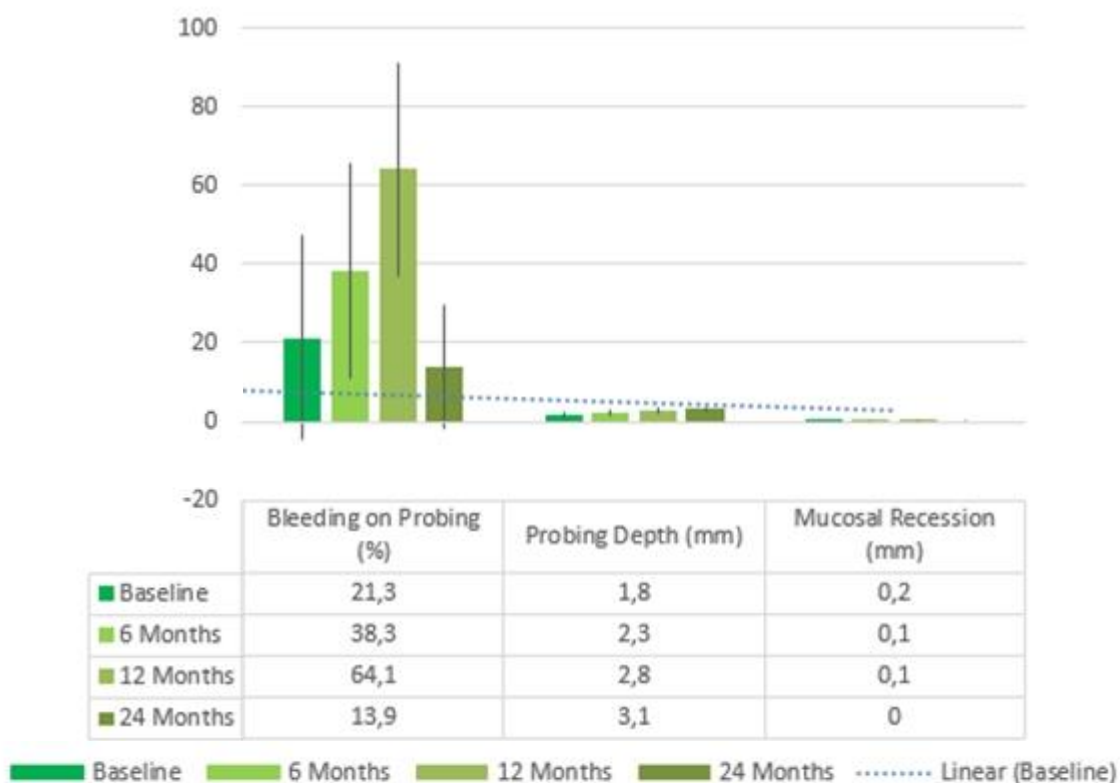


## Results

**Survival Rate:** The cumulative survival rate was 95.8%.

**Mechanical / Technical Complications:** At 23 months one fiberglass abutment fractured, due to a fractured crown. The fragment could be removed easily and a new abutment and crown were successfully replaced. Kaplan-Meier estimates of mechanical /technical complications amounted to 2.1%.

**Clinical Parameters:** 18 patients were diagnosed for initial peri-mucositis, however, correlated with increased plaque scores and, consequently increased bleeding on probing. Therefore the incidence may not be related to the implant system. Nonsurgical interventions reduced BOP to baseline values. Mucosal recession values decreased over time. For other parameters see chart below.



## Conclusions from Report

1. The ZV3 implant / fibreglass abutment system can be successfully used in the clinical indication investigated (single crown).
2. Survival rates are within the range of data reported in other prospective studies.
3. Initial peri-mucositis, likely attributed to increased plaque scores, could be successfully treated with nonsurgical interventions.
4. In patients exhibiting a mucosal recession at baseline, the creeping attachment resulted in an almost complete coverage of the former soft tissue defect area.

## Related Clinical Evaluations

Kohal, R. J., Knauf, M., Larsson, B., Sahlin, H. & Butz, F. (2012) One-piece zirconia oral implants: one-year results from a prospective cohort study. Single tooth replacement. *Journal of Clinical Periodontology* 39: 590-597.

Oliva, J., Oliva, X. & Oliva, J. D. (2010) Five-year success rate of 831 consecutively placed Zirconia dental implants in humans: a comparison of three different rough surfaces. *International Journal of Oral and Maxillofacial Implants* 25: 336-344.

Payer, M., Heschl, A., Koller, M., Arnetzl, G., Lorenzoni, M. & Jakse, N. (2014) All-ceramic restoration of zirconia two-piece implants - a randomized controlled clinical trial. *Clinical Oral Implants Reserach*.

Brüll, F., van Winkelhoff, A.J., Cune, M. (2013)

ZV3 Zirconia dental implants: A clinical, radiographical and microbiological evaluation up to 5 years. Accepted for publication: *The International Journal of Oral & Maxillofacial Implants*.