Results:

### Conclusions

The current meta-analysis aimed to provide a comprehensive overview of the clinical success of ceramic dental implants. A systematic review and meta-analysis were conducted to assess the long-term outcomes of ceramic implants compared to traditional metallic implants. The study included 39 publications, 10 clinical studies referred to alumina and 29 to zirconia dental implants. Irrespective of their study design, all studies reported the survival and success rates of ceramic implants.

**Alumina Implants**
- With a mean follow-up period of 21.4 months (5-45 months), the cumulative survival rate was 92.77% vs. 93.57% vs. 97.6%.
- The mean width change was -0.97 ± 0.07 mm.

**Zirconia Implants**
- With a mean follow-up period of 5.94 years (2.82-7.67), the cumulative survival rate was 96.16% / 91.6%.
- The mean width change was 3.1±0.6 mm.

### Discussion

The results indicate that ceramic implants, particularly zirconia, demonstrate promising long-term outcomes comparable to traditional metallic implants. However, further studies with larger sample sizes and longer follow-up periods are needed to confirm these findings.

### Limitations

- The included studies varied in design and methodology, which may affect the comparability of the results.
- The duration of follow-up varied across studies, limiting the direct comparison of outcomes.

### Future Research

- Longitudinal studies with standardized outcomes and longer follow-up periods are needed to firmly establish the clinical success of ceramic implants.
- Comparative studies between different types of ceramic implants are recommended to identify the most suitable material for specific indications.

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**References**: A detailed list of references is provided in the final version of the manuscript.

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