

Zygoma Quad Compared With 2 Zygomatic Implants: A Systematic Review and Meta-analysis

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Abstract

The oral rehabilitation of the atrophic maxilla is a great challenge for the oral and maxillofacial surgeon. The most common treatment for those cases are 2 zygomatic implants with regular and/or pterygoid implants and the other option is 4 zygomatic implants.

For that reason the objective of this study is to compare the survival and failure rate of 2 zygomatic implants combined with regular implants versus 4 zygomatic implants.

An electronic search revealed 6 articles that determine no statistical difference in using one treatment or the other in terms of survival and failure rate, but the **reduction on time and morbidity related to regenerative procedures with the regular implants may be the main advantage of zygoma-quad treatment.**

Background and Aim

The development of the zygomatic implants in the 90s represented a new treatment option for the severely atrophic maxilla. The number of zygomatic implants may vary from 1 to 4. The most common treatment option for a complete rehabilitation of the maxilla is a combination of 2 zygomatic implants with regular implants and/or pterygoid implants or the use of 4 zygomatic implants.

The aim of this study was to **systematically review and compare the survival rates of oral rehabilitations performed with 2 zygomatic implants combined with regular implants versus 4 zygomatic implants.**

Methods and Materials

An **electronic search** was performed in several databases for articles published in English between 2007 and 2015. Articles reporting human studies were included in this systematic review.

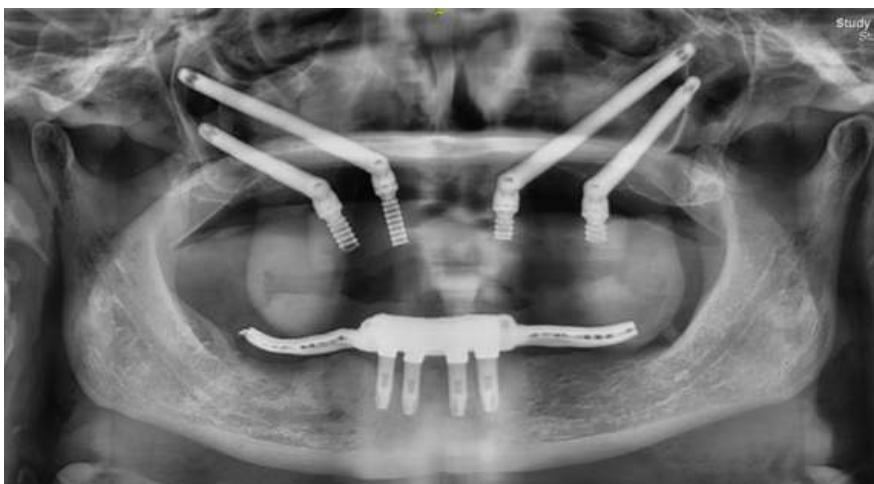
Results

The search yielded to a total of 417 studies, of which **6 were included in this study.**

Zygomatic implants survival rate WMN: 98.0% with a 95% confidence interval of 96.7% to 99.8%

Test Group

4 Zygomatic Implants



Implant Survival Rate: 97.4%

Control Group

2 Zygomatic Implants + Regular implants



Implant Survival Rate: 98.6%

No statistically significant differences in terms of survival rate were obtained between both groups (p-value = 0.286)
Regular implants might require bone-grafting procedures in the anterior region increasing the patient's morbidity and time of the procedure.

Conclusion

The data analysis showed **favorable results for treatment with four zygomatic implants.** The results showed no statistical differences in using 1 or another treatment, in terms of survival and failure rates. The reduction on treatment time and morbidity related to regenerative approaches may be its main advantage. In conclusion, the **zygoma quad seems to be the treatment of choice for the rehabilitation of the severely atrophic maxilla.**

References

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