SCIENTIFIC REPORT

Grandio Flow – Treatment of Class I cavities clinical study

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Grandio Flow, the flowable, nano-hybrid composite, is also indicated for the treatment of small Class I cavities. A 2-year, clinical study at the University of Hacettepe in Ankara (Turkey) examined the success of such treatments, whereby the effect of the cavity preparation (diamond bur and laser) was also more closely observed. [1]

27 patients were monitored in the study summarized here. Each patient exhibited a minimum of two carious lesions that were treated as follows in a split-mouth design: One cavity was prepared with a diamond bur, the second lesion was prepared using an Er,Cr:YSGG laser.
The excavated cavities were subsequently filled with Grandio Flow. Solobond M was used as the bonding material. 108 fillings were placed. These were evaluated according to the modified Czar/Ryge criteria; the recall rate was 100 %.

Results after 24 months

The results after 24 months are displayed in Figures 1 and 2.

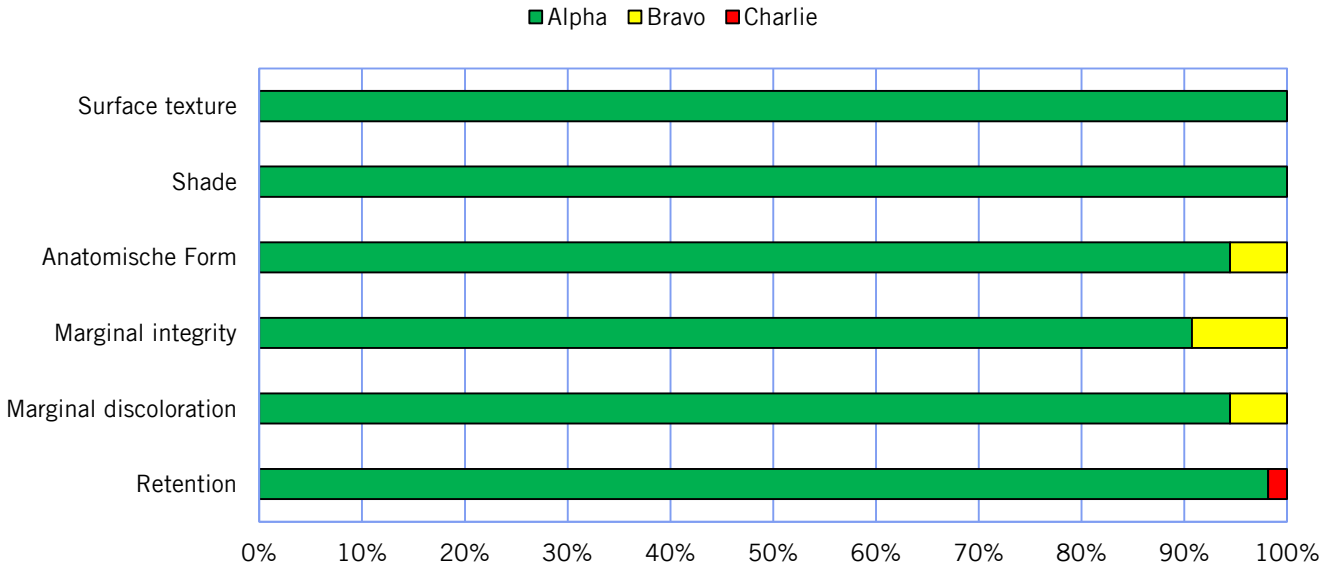

Figure 1: Results after 24 months; preparation with a diamond bur

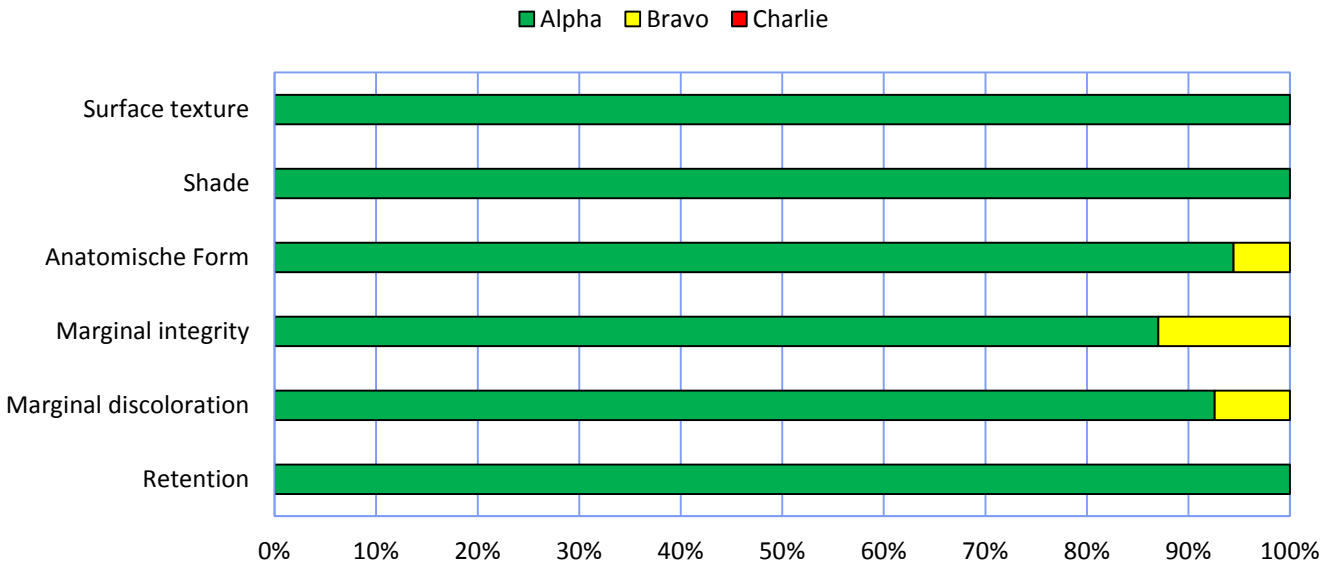

Figure 2: Results after 24 months; preparation with an Er,Cr:YSGG laser

The retention rate with the diamond bur preparation was 98.1 % and 100 % in the laser preparation group. No significant difference could be determined between the two groups. Post-operative sensitivities did not occur in any of the treated patients.

Conclusion: Grandio Flow is suitable for the treatment of small Class I cavities. The type of cavity preparation does not affect the success of the treatment.

[1] A. R. Yazici, M. Baseren, J. Görücü, *Poster #14*, WFLD Kongress **2010**, Dubai.