

## OR-II-4. Effects of CO<sub>2</sub> laser treatment and Ultrasonic scaling on gingivitis

Hyun-Jong Song<sup>1\*</sup>, Hyun-Seon Jang<sup>1,2</sup>, Byung-Ock Kim<sup>1,2</sup>

1 Department of Periodontology, College of Dentistry, Chosun University

2 The 2nd stage of BK21

### Background

Laser treatment has been expected to serve as an alternative or adjunctive treatment to conventional, mechanical therapy in periodontics due to various advantages, such as ablation or vaporization, hemostate, and sterilization effect. In this study, we compared CO<sub>2</sub> laser treatment to ultrasonic scaling, which is generally approved as a power-driven mechanical instrumentation, and evaluated both of these treatments regarding their clinical effectiveness and change in the volume of in GCF

### Material and methods

20 patients who had gingivitis were selected. all of patients has no systemic problems. Randomly selected, one quadrant received ultrasonic scaling only, another quadrant received ultrasonic scaling and CO<sub>2</sub> laser irradiation, the other quadrant received CO<sub>2</sub> laser irradiation only. clinical parameters measured at baseline, 1 weeks, 2weeks, 4weeks.

### Results

Among three groups, Ultrasonic scaling and CO<sub>2</sub> laser irradiation group was best result. The result of ultrasonic scaling only group was similar to CO<sub>2</sub> laser irradiation group.

### Conclusion

The result of this study shows CO<sub>2</sub> laser is useful for treatment of gingivitis