

Fluctuations in the SpO₂ during Dental Treatment with a Mouth Open

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The aim of this study was to assess how the respiration and circulation of child patients were affected during dental treatment with their mouths open using a mouth prop.

The subjects were divided into two groups ; the unpropped group (14 child patients) and the propped group (7 child patients).

The pulse rates (PR) and percutaneous oxygen saturation (SpO₂) were measured with a pulse oximeter during dental treatment.

The maximum and minimum values as well as the difference between them (Δ) were compared between the unpropped and propped groups.

While no significant difference of PR between the two groups the minimum SpO₂ of the propped group was lower than that of the unpropped group. The Δ SpO₂ of the propped group was larger than that of the unpropped group.

These results suggest that careful observation of child patients as well as monitoring of their respiration and circulation during dental treatment are necessary especially when a mouth prop is used, because the patients' respiration and circulation can fluctuate considerably.

Key words : mouth open, mouth prop, SpO₂