

## Fluctuations in Pulse Rates and SpO<sub>2</sub> during Dental Treatment of Crying Children

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The aim of this study was to assess the effects of dental treatment on the respiration and circulation of crying child patients.

The subjects were divided into the non-crying group (19 child patients) and the crying group (19 child patients).

The pulse rates (P. R.) and percutaneous oxygen saturation (SpO<sub>2</sub>) were measured with a pulse oximeter during dental treatment, and the maximum and minimum values as well as the difference between them ( $\Delta$ ) were compared between the non-crying and crying groups.

The maximum P. R. and  $\Delta$ P. R. of the crying group were significantly larger than those of the non-crying group. The minimum SpO<sub>2</sub> of the crying group was significantly lower than that of the non-crying group, and the  $\Delta$ SpO<sub>2</sub> of the crying group was significantly larger than that of the non-crying group.

These results suggest that careful observation and pulse oximeter monitoring are necessary during dental treatment of crying children, because their respiration and circulation can fluctuate considerably.

In high-risk cases, general anesthesia may be preferred for dental treatment of crying children.

Key words : crying children, pulse rates, SpO<sub>2</sub>