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Inhaled Methoxyflurane sedation for wisdom tooth removal: A comparison to nitrous oxide sedation

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The aim of this study was to evaluate the use of inhaled methoxyflurane (Penthrox) in the reduction of dental anxiety in patients undergoing mandibular third molar removal in a specialist surgical suite and compare it to the conventional nitrous oxide sedation.

Methods: A prospective randomized, non-blinded crossover design study of 20 patients receiving two types of sedation for their third molar extraction who participated in 40 treatment sessions. At first appointment, a patient was randomly assigned to receive either nitrous oxide sedation or intermittent Penthrox inhaler sedation, with the alternate regimen administered during the second appointment. Peri-procedural vital signs (heart rate and blood pressure) were recorded and any deviations from 20% from the baseline values, as well as any drop in oxygen saturation below 92% were documented. The Ramsay Sedation Scale (RSS) score was recorded every five minutes.

Results: Levels of sedation were comparable in nitrous oxide and Penthrox sedation sessions. However, at 15 minutes of sedation it was significantly lighter ($p < 0.05$) in Penthrox. No patient was either deeply sedated or agitated. Blood pressure was within $\pm 20\%$ from the baseline values.

Conclusions: The Penthrox inhaler can produce a comparable sedation to that of nitrous oxide for the surgical extraction of third molars under local anesthesia.

Biography

Walid Ahmed Abdullah has completed his Ph.D. at the age of 34 years from Mansoura University and postdoctoral studies from Mansoura University Dental School Egypt. He has published more than 12 papers in reputed journals.

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