

## Comparing the sedative effect of oral chloral hydrate/Hydroxyzine vs. Midazolam/Hydroxyzine in children

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**Background & Aim:** The use of premedication and sedation has been widely accepted among the international dental community. The aim of this investigation was to determine the sedative effect of oral Midazolam/Hydroxyzine and Chloral hydrate/Hydroxyzine combination in uncooperative children aged 4-10 years.

**Materials & Methods:** A total of 16 uncooperative Children aged 4-6 years were selected from those referred to the department of Pediatric Dentistry at Shahid Beheshti Medical University. Cases with a behavioral score of 2 in Frankel scale system were included with at least two similar dental needs with each case acting as self control. Informed consent was obtained from parents of all cases. Half of the population were assigned randomly to receive the first regimen while other half received the other regimen. Child's behavior was videotaped using a mounted digital video recorder in all cases in each appointment. Child's reactions were scored using North Carolina Behavior Rating Scale (NCBRS). Patients received 1mg/kg Hydroxyzine and 0.5 mg/kg Midazolam in one visit and 50 mg/kg Chloral Hydrate along with 1mg/kg Hydroxyzine in the other visit. Attempts were made to keep the two treatment sessions timing equal. Collected data were analyzed using Wilcoxon and Paired t-test.

**Results:** There was a clear increase in the level of child's cooperation following the use of the two combination drugs. However there was no statistical significant difference when child's reaction was compared after the administration of the two cocktail drugs. There was a small superiority on the use of Chloral hydrate/Hydroxyzine over the Midazolam/Hydroxyzine combination (75% to 63% improved behavior). Wilcoxon test showed no statistically significant difference between the effects of the two groups ( $P > 0.05$ ).

**Conclusion:** There were no significant differences between the sedative effects of the two combination drugs however; Chloral hydrate/Hydroxyzine combination appears to have a higher sedative effect with a longer lasting period when compared to Midazolam/Hydroxyzine.