

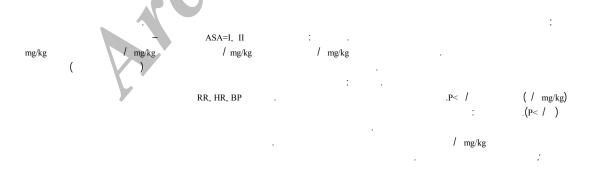
## Determination of effective dose of oral midazolam for preoperative sedation of children

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Objectives: Prevention of fear and anxiety in children separated from their parents needs preoperative, psychological and pharmacologic preparation. The purpose of this study is to evaluate the efficacy and safety of different doses of oral midazolam for premedication in pediatric patients. Methods: 100 ASA (American Society of Anesthesiologist)=I,II children aged between 6 months to 6 years candidated for elective surgery were divided in to 5 groups of 20 patients. They randomly received oral midazolam 0.5 mg/kg (group I, N=20), 0.3 mg/kg (group II, N=20), 0.8 mg/kg (group III, N=20), 1 mg/kg (group IV, N=20), placebo (group IV, N=20), as premedicants. Using double-blind study method, sedation, anxiolysis and change in vital signs were evaluated by blind observer (45 minutes after premedication and during the mask induction of anesthesia). Results: Acceptable conditions for parental separation were different between groups, the best condition during separation and induction was for group III (0.8 mg/kg), P<0.005. There were not any adverse effects in all groups. The Blood Pressure (BP), Heart Rate (HR), Respiratory Rate (RR) changes before and after premedication were significantly different in all groups (P<0.05). Conclusion: One of the benefits of premedication is to decrease the dose of drugs used in anesthesia therefore reduction in recovery time, cost and side effects of drugs. Therefore we can conclude that premedication with oral midazolam was successful in decreasing post- surgery side effects. Oral midazolam with a dose of 0.8 mg/kg is effective and useful premedication in children.

Key Words: Midazolam, Premedication, Pediatric.



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(
           ) Anxiolytic
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    One-way Anova T-Test Chi-Square, U Mann-Whitney
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P<0.05

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Blind
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                                                      / mg/kg
                                                                                 mg/kg
                                                                                    mg/kg
                     (
                                                            (HR)
                                                                            (BP)
                                                                        (SPO2)
                                                                                               (RR)
                                                                    (Blind observer)
                                                            )
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             (SPSS)
            / mg/kg
            / mg/kg
                                     / mg/kg
                                        mg/kg
                                      (P>0.05)
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BP (P < / ) BP % (P < / ) % % HR (P < / ) RR (P< / ) .( P< /  $Spo_2$ % (p< / ) RR HR (P< / ) (P</ (P < / )1RR ,HR ( P< / ) (P< / 1) ( P< / ) / (p< / ) ( P< / )

/ ± / / ± / / ± / / ± / / ± / BP ) / ± / / ± / / ± / / ± / / ± /  $\operatorname{BP}$ / ± / / ± / / ± / / ± / / ± / HR ) / ± / / ± / / ± / / ± / RR / ± / / ± / / ± / / ± / / ± / SPO2 / ± / / ± / / ± / BP ( ) / ± / / ± / / ± / / ± / BP / ± / / ± / / ± / HR ± / ( RR ± / / ± / / 0 ± / SPO2 / ± / / ± / / ± / / ± / / ± / / ± / ( ) / ± / / ± / / ± / / ± / ( ) / 0± / / ± / / ± / ( ) / 0 ± / / ± / / ± / / ± /

BP=Blood Pressure HR=Heart Rate RR=Respiratory Rate Spo2=O2 Saturation

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Wilton and colleogues

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mg % / mg/kg / mg/kg % HR Masu .(p< / ) / mg/kg mg/kg / mg/kg RR % / mg/kg / mg/kg Erlandson / mg/kg Erlandson . .( )

/ mg/kg / mg/kg / mg Liacouras ± / / mg/kg mg .() Michalska / mg/kg Liacouras . (Premedication) .( ) / mg/kg Liacouras Gallardof mg/kg / mg ( / mg/kg)

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