Comparison of nebulised dexmedetomidine, ketamine, or midazolam for premedication in preschool children undergoing bone marrow biopsy

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Abstract:

Abstract BACKGROUND: The aim of our study was to compare the efficacy of dexmedetomidine, ketamine, and midazolam for sedative premedication administered by nebuliser 30 min before general anaesthesia in preschool children undergoing bone marrow biopsy and aspiration. METHODS: Ninety children aged 3-7 yr were randomly allocated into three equal groups to be premedicated with either nebulised ketamine 2 mg kg⁻¹ (Group K), dexmedetomidine 2 μg kg⁻¹ (Group D), or midazolam 0.2 mg kg⁻¹ (Group M). The primary endpoint was a five-point sedation score on arrival in the operating room 30 min after end of study drug administration. Secondary outcomes included: parental separation anxiety scale; medication and mask acceptance scales; haemodynamic variables; recovery time; postoperative face, legs, activity, cry, and consolability scale; emergence agitation scale; and adverse effects. RESULTS: The median (range) sedation score on arrival in the operating room was 3.5 (1-4), 2.0 (2-3) and 2.0 (1-3) in Groups M, D, and K, respectively (P=0.000). Subjects in Group D showed higher medication acceptance (P

Keywords:

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