Dental office sedation using IV Ketamine/Atropine/Midazolam in children; a case series approach

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Background & Aim: Conscious sedation has long been seen as a way to overcome the fear and anxiety at medical and dental clinics. This investigation is aimed to introduce a new approach to the dental community by offering the child and the pediatric dentist the chance to have all teeth treated in one visit under sedation.

Materials & Methods: A total of 50 uncooperative Children aged 2-7 years were selected from those referred to a group of specialist Pediatric Dentists located in the Greater Tehran. All cases were confirmed by two pediatric dentists as fully uncooperative. Patients were scheduled for one visit full mouth rehabilitation under IV Sedation using the combination of Ketamine/Atropine/Midazolam (KAM). Informed consent was obtained from parents of all cases. All treatment needs of the population were dealt with and child's reaction as well as time taken for this procedure were recorded accordingly. Cases were observed for one hour postoperatively in order to ensure their full recovery prior to discharge. Various dental treatments were performed as necessary with their statistics being recorded for further comparison and analysis. Parents’ perception as well as pediatric dentist's satisfaction from work in this circumstance was also evaluated. In addition, any possible side effect of the drugs used were also requested to be reported by parents. Collected data were analyzed using basic statistics.

Results: There was a reasonably high acceptance rate among parents who initially showed some degrees of concern over this newly introduced method in the country. Pediatric dentists were mostly happy with this method with few concerns raised over the risks involved including a possibility of laryngeal spasm. Cases showed no desaturation below 95% and their Pulse rate was also normal. Most of the cases were suffering from more than 8 teeth involved and various treatments were delivered in a mean time of 120 minutes was calculated for all children. There were 3 cases with vomiting report 2 hours post operatively following a large volume of drink intake. None of the cases had any problem with pain or breathing problem.

Conclusion: Children of this investigation had no memory of their dental visit and were happy to return. Parents and pediatric dentists were both satisfied with the results of what could be proved untreatable otherwise. Little to no complication was noticed.