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Aim: To evaluate safety and complications of our sedation method: pre-treatment screening, propofol sedation with laryngeal mask, supplemented with local anesthesia by dentist, for extensive dental treatments (restorations, pulpotomies, stainless steel crowns and extractions) in a group of pediatric dental care clinics.

Method: Retrospective descriptive study of 14.323 patient records (1998–2015). Children were screened prior to treatment by the anesthesiologist. ASA I and II patients were accepted. Records were kept of variables (HR, RR, Breathing Rate, SO₂, ETCO₂, propofol used), complications (lasting damage to patient) and incidents (no lasting damage to patient) due to sedation.

Results: 14323 patients were treated, age average 4.9 year (range 2-18 years), treatment time average 59 minutes (range 5-221 min).

Sedation related complications: deaths=0, hospital admissions=0, hospital visits=3, serious complications=0, anaphylactic reactions=0.

Incidents: >2 attempts IV access=440 (3.1%), laryngeal mask (change size or cleaning)=257 (1.8%), desaturation (<90%, >20 sec)=117 (0.8%), subcutaneous propofol=51 (0.4%), rash=4, intubation=7, assisted ventilation=4, vomiting=5, object (tooth=4x, crown=1x, cap=1x, tip of scissors=1x) lost and found in oropharynx=7, epileptic insult at induction=2, gauze retrieved from mouth in recovery room=2, cardiac dysrhythmia=1, chewing gum found in mouth after induction=1, patient went home with IV in place. No or interrupted treatment due to incident=8.

Miscellaneous non-sedation reported incidents: nosebleed=3, parent fainted=3, power failure=1, equipment failure =2.

Conclusion: This review indicates that office based ambulatory propofol sedation with laryngeal mask and spontaneous ventilation for dental treatment in children is a safe method, effective and with a very low chance of complications.