Patients with Pierre Robin sequence (PRS) often present with cleft palate, posteriorly set tongues (glossoptosis) causing Tongue Based Airway Obstruction, small retrognathic mandible, and obstructive sleep apnea. Performing intra-oral distraction osteogenesis to correct airway obstruction is optimal with a nasal endotracheal tube. Nasal intubations in PRS patients are complicated by small nasal passages, microstomia limiting successful direct nasal intubation, and an anteriorly placed larynx making visualization of the vocal cords a challenge. Published descriptions of different techniques include nasal fiberoptic intubation and retrograde nasal intubation after LMA-aided oral fiberoptic intubation. Both techniques can take considerable time to achieve tracheal intubation and risk hypoxia, unless constant oxygenation is provided. We describe below a technique of controlled nasal intubation by glidescope guidance with continuous oxygenation. We used this technique on two infants with PRS scheduled for distraction osteogenesis. Mask induction and peripheral IV start were followed by simultaneous iv glycopyrrolate (10mcg/kg), ketamine (1mg/kg), and a dexmedetomidine infusion at 1mcg/kg/h, (no bolus). After direct laryngoscopy to document a best view, we placed a glidescope to visualize and spray the vocal cords with 1% lidocaine, via atomizer syringe. Oxygen was given through a 5Fr (1.65mm) angiographic catheter (cat # 451-514H0 Cordis, Johnson & Johnson: 100cm long, open ended, 0.97mm inner diameter), over which a standard cuffed 3.0 ETT was pre-loaded. The catheter was nasally placed into the nasopharynx and oxygenation was provided continuously via the catheter at ~0.5 LPM. The patients were spontaneously breathing. GlideScope Cobalt AVL #1 was used to visualize vocal cords, aided with cricoid pressure. Once the cords were visualized, the nasally placed angiocatheter was advanced into the larynx. The 135-degree angled tip of the angiocatheter aided this process. Once the angiographic catheter was manually guided to pass through the cords, the 3.0 ETT was advanced over the catheter into the trachea, visualized by glidescope. The entire process lasted <2 minutes. Vital signs were stable without any desaturations. With closing capacities that approach FRC, these infants are at high risk for hypoxia with airway management techniques that don’t ensure continuous oxygenation. Our technique mandates a spontaneously breathing infant and anesthesia that prevents laryngo/bronchospasm. Smallman B, Ball R, Tatum S. A novel technique of retrograde nasal intubation for the Pierre Robin sequence infant with a known difficult airway. Paediatr Anaesth 2009 19, 908-928 DeAmandi A, Shukry M, Mayhew JF. Changing an oral endotracheal tube to a nasal tube in Pierre Robin Sequence. Paediatr Anaesth 2009 Dec 19(12) Selim M, Mowafi H, Al-Ghamdi A, Adu-Gyamfi Y. Intubation via LMA in pediatric patients with difficult airways. Can J Anaesth. 1999 Sep;46(9)