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## Our experience with regional anesthesia in a case of Pierre Robin syndrome

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**Introduction:** Pierre-Robin Syndrome (PRS) was originally defined in 1920 as a triad consisting of micrognathia, cleft palate and glossoptosis. In this report, in a case of PRS who could not be intubated previously and have an history of tracheostomy and planned to undergo operation due to hip dysplasia, our anesthesia management and approach is presented.

**Case:** A 8 year old boy at the weight of 18 and diagnosed with PRS underwent preoperative evaluation and restricted mouth opening, micrognathia and short extremities were present. Mallampati score was 3, head-neck extension comfortable and tiromental distance within normal range. Preoperative laboratory and imaging tests yielded normal results. As the patient had history of difficult intubation and tracheostomy preparations were made for difficult intubation. Following routine monitorization, preoxygenization was performed. 2 mg/kg propofol was administered intravenously and then 2.0 no. i-gel was placed on supine position. Case was placed in lateral cubitus position. Following skin preparation with antiseptic, spinal block was carried out by administering 0.4mg/kg hyperbaric bupivacain to L4-5 vertebral space. After the procedure, the patient was placed in supine position. Muscle relaxants were not used during surgery and anesthesia was maintained with 4mg/kg/ hour continuous propofol infusion. Spontaneous respiration was sufficient at the end of operation and the patients was extubated without any problems and transferred to recovery unit. In follow up, active extremity movements started and patient was transferred to orthopedics clinic.

**Discussion:** Patients with Pierre Robin Syndrome have high risk of airway obstruction and the probability of the development of hypoxemia, cor pulmonale, loss of strength and cerebral anoxia is high. In these patients, respiratory problems lead to the aggravation of clinical picture. This is caused by the presence of glossoptosis in addition to cleft palate, the sticking of tongue into palate, and smaller oral cavity owing to micrognathia. In children with PRS, due to small size and backward position of jaw, using mask and maintaining open airway in supine position is extremely difficult. Since the airway obstruction risk will increase when soft tissue are relaxed, the use of muscle relaxants should be avoided. Upon the lack of any problems in using mask in our case, i-gel was placed without using any muscle relaxants under propofol anesthesia and spinal block was carried out for post operative analgesia.

**Conclusion:** In PRS cases, intubation and extubation requires special care and preoperative monitorization is warranted. It is our opinion that in these cases, preparations should be made for difficult airway management and spinal anesthesia may be reliably and safely used in lower extremity surgeries.

### Biography

Ozkan Onal has completed his medical education at Gazi University Medical Faculty and he was specialized in anesthesiology in Hacettepe University Medical Faculty. He has more than 15 publications in reputed journals in the field of anesthesia.

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