Mandibular Advancement By Distraction Osteogenesis For Obstructive Sleep Apnea In Patient With Pierre Robin Sequence: A Case Report

Mohamed Hisham Mohamed Jali @ Yunos\textsuperscript{a} | Shaifulizan Abdul Rahman\textsuperscript{b} | Ramizu Shaari\textsuperscript{b}

\textsuperscript{a}Department of Oral & Maxillofacial Surgery, Pathology and Medicine, Faculty of Dentistry, Universiti Sains Islam Malaysia | \textsuperscript{b}Oromaxillofacial Surgery Unit, School of Dental Sciences, Universiti Sains Malaysia

**Introduction:** Pierre Robin Sequence (PRS) is a condition consists of set of anomalies, which are cleft palate, micrognathia and glossoptopsis. Management of patients with PRS addresses two main problems, namely airway obstruction and feeding difficulties. Airway obstruction may lead to obstructive sleep apnea (OSA). Treatment modalities for OSA are based on the causes. There are surgical and non-surgical methods. Non-surgical methods such as diet, medication, oral appliances and continuous positive airway pressure (CPAP) can only be employed in moderate cases. Surgical method such as maxillo-mandibular advancement or expansion can be achieved by orthognathic surgery or distraction osteogenesis. We present a case report of successful management of airway in a 23-year old lady who has a PRS features with severe OSA. In our case, the respiratory obstruction that was caused by retrognathic and hypoplastic mandible has been corrected successfully with distraction osteogenesis and the OSA was found to be improved tremendously.

**KEYWORDS:** Pierre Robin Sequence, distraction osteogenesis, obstructive sleep apnea