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Title: Type IV laryngotracheoesophageal cleft: A case of success

Dr. Manuel 22623 Ferreira-Magalhães ferreirademagalhaes@gmail.com MD¹, Prof. Inês 22624 Azevedo inesaguedaazevedo@gmail.com MD¹, Dr. Susana 26916 Pissarra susanapissarra@gmail.com MD², Prof. Jorge 26935 Spratley ferreirademagalhaes@gmail.com MD³, Prof. Jorge 26936 Correia-Pinto ferreirademagalhaes@gmail.com MD⁴, Prof. Venceslau 26950 Hespanhol ferreirademagalhaes@gmail.com MD⁵ and Dr. Jose 26957 Matute ferreirademagalhaes@gmail.com MD⁶. ¹ Paediatric Department, Centro Hospitalar S. João, Porto, Portugal ; ² Neonatology Departement, Centro Hospitalar S. João, Porto, Portugal ; ³ Otorhinolaryngology Department, Centro Hospitalar S. João, Porto, Portugal ; ⁴ Paediatric Surgery Department, Centro Hospitalar S. João, Porto, Portugal ; ⁵ Pulmonology Department, Centro Hospitalar S. João, Porto, Portugal and ⁶ Paediatric Surgery Department, Hospital Virgen del Rocío, Sevilla, Spain .

Body: Introduction: Laryngotracheoesophageal clefts (LTEC) are extremely rare congenital anomalies. Mortality and morbidity is high due to difficulty in assure newborn stability, surgical approach and associated comorbidities. Clinical case: A 12 days male newborn, without relevant prenatal history, was admitted in NICU with feeding problems and suspected tracheoesophageal fistula. Pulmonary parenchyma was preserved. After initiation of ventilatory support he developed severe acute respiratory distress. Diagnose of a type IV LTEC, extended to carina, was made by emergent rigid laryngotracheoscopy with immediate selective intubation of right bronchus. Multidisciplinary surgical correction was performed 48 hours after, with international expertise collaboration. Tracheoesophageal separation was made by median sternotomy, requiring cardiopulmonary bypass. Few days after surgery the newborn underwent gastrostomy, fundoplication and tracheostomy because of severe tracheomalacia causing difficulties in ensure noninvasive ventilation. At 3 months a small bleeding granuloma near carina was coagulated with YAG laser. Consecutive endoscopic evaluations showed a partial LTEC dehiscence. Successful transcervical surgical correction and definitive tracheostomy decannulation was made at 10 months. By 20 months he had a normal growth and development, with little hoarseness, sporadic cough and almost full oral feeding. Conclusion: Type IV LTEC is the rarest and severest form of laryngeal clefts. This was an atypical presentation without any severe respiratory distress in the first hours of life and any prenatal or pulmonary findings. These aspects and the prompt expertise intervention assured an excellent outcome without major comorbidities.