LONG TERM LONGITUDINAL STUDY OF NUTRITIONAL STATUS IN PATIENTS BORN WITH OESOPHAGEAL ATRESIA

S Depoortere, M Aumar, D Ley, A Nicolas, S Coopman, D Guimber, D Turck, R Sfeir, L Michaud, F Gottrand
Reference center for rare esophageal congenital diseases, CHU Lille, Univ. Lille, F-59000 Lille, France

BACKGROUND

Nutritional status of patients born with esophageal atresia (EA) can be compromised by multiple complications and remains worse than in general population. Several studies have suggested a catch-up during childhood.

OBJECTIVES

1. Assess long-term growth in patients born with EA up to the age of 16 years.
2. Identify wasting and stunting's predictive and associated factors in patients born with EA.

METHODS

Cohort retrospective monocentric study with prospective inclusion of all patients who had EA surgery between 2000 and 2018.

Collection of perinatal, surgical, medical and anthropometric data.

Calculation of Body Mass Index (BMI) and Height for Age ratio (HFA) at 1, 3, 6, 8, 12 and 16 year(s) old (yo).

→ Wasted if Z score BMI < - 2 SD and Stunted if Z score HFA < - 2 SD.

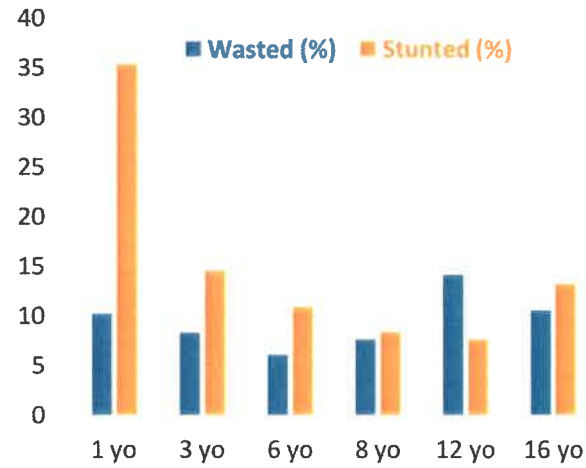
Analysis :

1. Long-term growth : repeted transversal analysis and longitudinal analysis with 12 and 16 yo workforce.
2. Predictive and associated factors : uni then multivariate analysis with interval censorship.

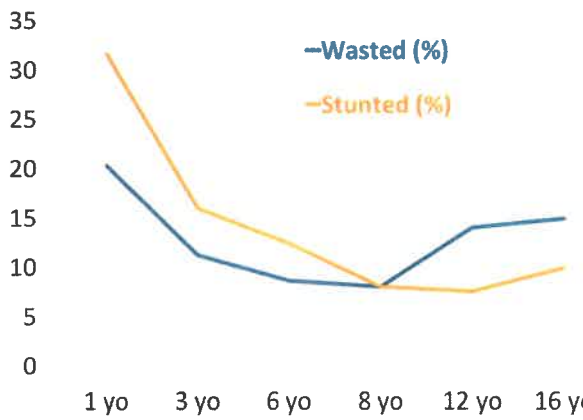
RESULTS

204 patients included : 40 % wasted (19 %) or stunted (30 %) at some point of the follow-up.

TRANSVERSAL ANALYSIS



LONGITUDINAL ANALYSIS ON 12 YO WORKFORCE



Non significant rebound in prevalence observed at puberty

Congenital heart malformation (HR 2.5 [1.2 – 5.0]) and antireflux surgery (HR 2.7 ([1.2 – 6.2]) were associated with wasting. Genetic anomalies (HR 4.4 [1.7 – 11.2]) and treatment with growth hormone (HR 5.4 [2.0 – 14.0]) were associated with stunting.

CONCLUSION

Despite recent advances in neonatal care, patients born with EA remain at higher risk of wasting and stunting than general population. Nutritional follow-up of these patients needs to be strengthened in cases of congenital heart disease or severe GERD and extended to adulthood.