00639

THEME : NEWBORN HEARING SCREENING

Longitudinal Follow-up of Neonatal Hearing Loss Identified in a Regional Reference Center.

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Introduction

Since newborn hearing screening was made mandatory in France in 2012, there has been no study on its effect in our region.
Several studies demonstrated that neonatal auditory screening reduced the age at diagnosis, both in France[1] and in Europe[2].
Early detection and intervention are linked to better language abilities[3,4].
Several socio-economic variables are known to influence diagnosis, care and auditory rehabilitation in hearing-impaired children[5,6].
To improve our practice, we aimed to learn more about the demographics of the patient cared for in our department.

Aim

To provide an epidemiological description of children with neonatal hearing loss in a reference university hospital in France.

Methods

- 86 children diagnosed with unilateral or bilateral deafness following neonatal hearing screening and born within the region covered by the regional University Hospital Center, between Jan. 1st, 2013, and Dec. 31st, 2022,
- Retrospective, monocentric, longitudinal cohort study.
- Medical and socio-economic data were collected along with auditory performance questionnaire (MAIS), and a questionnaire on perceived stress during the care journey (PHICE).
- Patients were compared based on the age of auditory rehabilitation (before or after 12 months).

Results

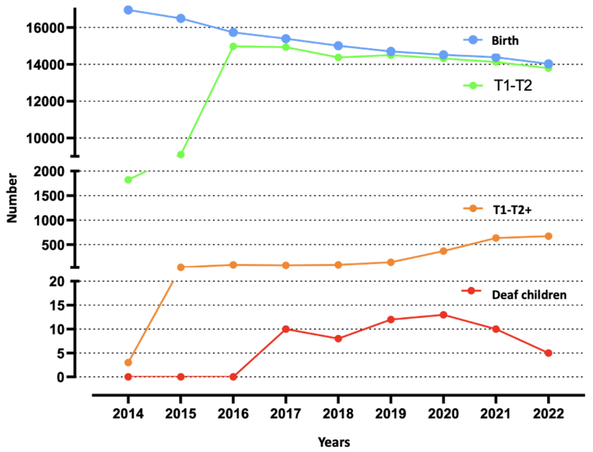

Figure 1: Change in the number of births, children to be tested, T1-T2 tests performed, suspected deafness after T1-T2 tests and deaf children, in our region, between 2014 and 2022

- Neonatal hearing screening achieved 99% coverage since 2018.
- Apart from the number of siblings, both groups had similar medical (deafness risk factors, comorbidities) and socio economic characteristcs (household income and main language, parents and child's schooling, distance to center, siblings).
- Questionnaire responses differed on the age of rehabilitation , on the side and type of hearing loss, as well as the type of rehabilitation.
- Auditory performance was similar between groups based on the age of rehabilitation.
- 3 situations were found to be more stressful in the group with rehabilitation ≤ 12 months : interaction with the paramedical team, obtaining medical information about hearing impairment, and the child's behavior.

Conclusion

Evaluation of the regional screening process reveals nearly complete coverage.

There are no medical nor socio-economic or auditory performance differences according to rehabilitation age. Early detection and diagnosis seem to be more related to perceived parental stress.

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