Tinnitus and Hyperacusis Among Children and Adolescents in Denmark

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Purpose
To gain more knowledge about the apparent mismatch between the epidemiological data regarding tinnitus and hyperacusis in children and young people in the literature and the data reported in clinical studies (1, 2).

Background
Studies report a larger variation in the prevalence of tinnitus in children than in adults. The majority of the studies have not ascertained tinnitus severity and/or complaint behaviour, the age range of children studied varies, and there are differences between definitions and measures. The findings are however broadly similar to the adult population, close to 30% (3).

The incidence of tinnitus in children is very low (1). This might mean that some of the prevalence data we have might be wrong, or it might be that children with tinnitus are not able to access clinical services.

Methods
This poster provides an overview of three different studies included in the Doctoral study.

1. Overview of present services of diagnosis, referrals and treatment
1.a Audiology departments – diagnosis and treatment. Retrospective study.
1.b Ear, Nose and Throat specialists diagnosis and treatment. Prospective study
1.c Other centres of treatment

2. Population Studies and a Profile analysis
2.a Hearing status, tinnitus and hyperacusis in a child cohort
2.b Profile Analysis of young people from The Danish National Health Survey (NATSUP) Cross-sectional study

FIGURE 1 Overview of present services of diagnosis, referrals and treatment

FIGURE 2 Self-portrait of boy age 8 with tinnitus

1.a Audiology departments.
Design: A retrospective case review of patients between 5 and 19 years with a primary complaint of tinnitus and/or hyperacusis seen at Danish Departments of Audiology during the last 5 years will be undertaken via The National Patient Registry. All medical records will be reviewed with a focus on hearing status, process (similarities and differences), severity and coping and treatment.

Objective: To determine the numbers of children and young persons referred with a primary complaint of tinnitus (DH931) and/or hyperacusis (DH932B) to Departments of Audiology in Denmark within 01.01.09 - 31.12.13.

• To determine how these children/young people came to be referred, and after how long, and how many previous medical consultations.
• To create a profile of the children / young people referred.

1.b Ear, Nose and Throat specialists diagnosis and treatment.
Design: 16 ENTs working on the Danish island Funen will over a 6-month period provide a overview on their treatment and onward referral for children and adolescents aged 5-19 years diagnosed with tinnitus and/or hyperacusis.

In cases where there is no need for further treatment, the ENT send a notification with a description from the medical records in order to get the child registered in the project.

Objective: To investigate how children and young people are assessed and managed in the ENT’s practice in the area of Funen regarding diagnosis and treatment (including onward referral to a specialist centre) of tinnitus/hyperacusis.

1.c Other centres of treatment
The educational-psychological advisory service (EPDS) in each municipality (there are a total of 98 municipalities in Denmark) will be notified by email with a questionnaire for the majority of the centres are not treating children with tinnitus.

Results
Not all studies are performed yet.

1.c Preliminary results are showing the majority of centres are not treating children with tinnitus.

2.b Data from 2010 has been extradited. Data from 2013 will be issued May or June 2014.

Discussion
Study 1.c highlights the difficulties on getting a broad overview on the treatment.

Data collection is time-consuming and lack of electronic records management systems will probably be a bias for answering correctly for some EPDS’s. There also seems to be a very informal way of referring and lack of National Guidelines could be a part of the reason of the large variation of the service provided.

References:

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