OP092 - TRENDS IN THE INCIDENCE AND SEVERITY OF JUVENILE-ONSET RECURRENT RESPIRATORY PAPILLOMATOSIS IN FRANCE: RESULTS FROM THE BREATH STUDY (ID 1333)

Topic
AS03. Population Science and Public Health

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Introduction
Juvenile-onset recurrent respiratory papillomatosis (JoRRP) is a chronic HPV-driven condition characterized by recurrent airway papillomas, with causal infections acquired vertically during childbirth. In France, data on the epidemiological burden, patient characteristics, and disease severity of JoRRP are limited. The BREATH (Burden of Recurrent REspiratory PApillomaTosis in CHildren) study was designed to address these gaps.

Methods
BREATH is a retrospective, non-interventional study using the French Health Claims database of patients diagnosed with RRP before age 18 years between 2010-2022. A case-identification algorithm using ICD-10 and procedure codes was developed and validated against medical records. Demographic variables included age at diagnosis, sex, and C2S status (solidarity insurance as a proxy for socioeconomic deprivation). Aggressive disease (AD) was defined by any of: ≥ 4 surgeries in a 12-month period, extralaryngeal disease (pulmonary involvement and/or malignant transformation), or tracheostomy. Incidence was estimated using JoRRP case counts and national census denominators, stratified by age group. Average annual percentage change (AAPC) in incidence was derived using Joinpoint regression. Sensitivity analyses of incidence have been performed.

Results
A total of 263 JoRRP cases aged 0–17 years were identified, of which 76.0% (n=200) were incident. Among incident cases, 54.0% were female, median age at diagnosis was 3.0 years, and 30.5% were C2S beneficiaries. With a median follow-up of 7.2 years from initial diagnosis (IQR: 4.2 – 10.2), 33.0% (n=66) of incident JoRRP met criteria for AD; of these, 90.9% experienced ≥ 4 surgeries in at least one 12-month period during follow-up. Incidence remained relatively stable, from 0.13 per 100,000 person-years in 2010 to 0.09 in 2022 (AAPC −3.5%; 95% CI −7.2 to 0.4). Incidence was highest among children aged ≤ 4 years (2010-2022: 0.36 to 0.18).

Conclusions

This study provides the first nationwide insights into JoRRP epidemiology and highlights the need for preventive strategies for this non-curable disease.