



Prevalence of Medical conditions in a French Clinical Pediatric Cohort with ASD: ELENA Cohort

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Background and objectives:

Medical and behavioral issues are more prevalent in youth with ASD than in the general population. These co-morbid conditions are often related to the occurrence of aberrant behaviors. However, they are underdiagnosed and not enough taken into account for prevention. This study aimed to better estimate the prevalence of comorbidities in ASD among children and adolescents to identify their risk factors.

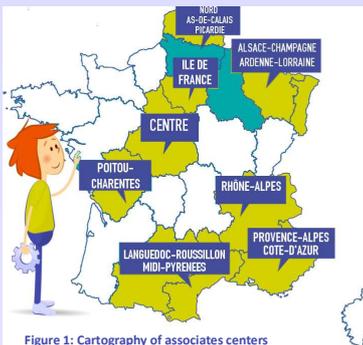


Figure 1: Cartography of associates centers

What is the ELENA cohort ?

It's a French national clinical pediatric cohort with ASD. This cohort is a dynamic and prospective study. Participants are aged between 2 and 16 years, and have a diagnosis of ASD formally established by a multidisciplinary team according to international criteria (ICD10). We expect to include around 1000 participants and to follow them until 10 years.

Method:

Type and frequency of medical condition are examined in the cohort of children and teenagers with ASD. Medical conditions are collected using a standardized parental questionnaire adapted from NIMH* and behavioral/emotional problems using the Child Behavior Checklist questionnaire (CBCL 6-18). At this time the sample of this cohort is 320 patients.

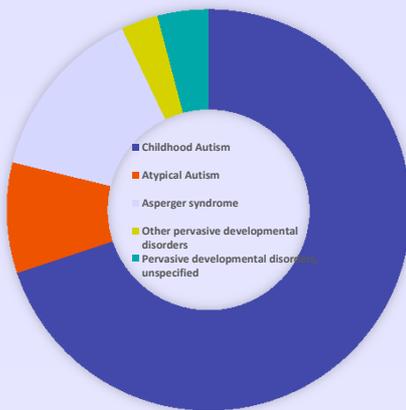


Figure 2 : Percentage of diagnosis (N = 269)

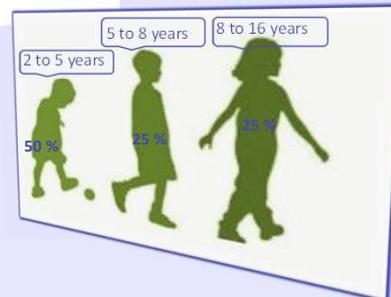
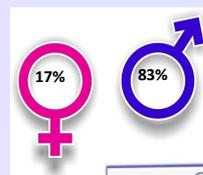
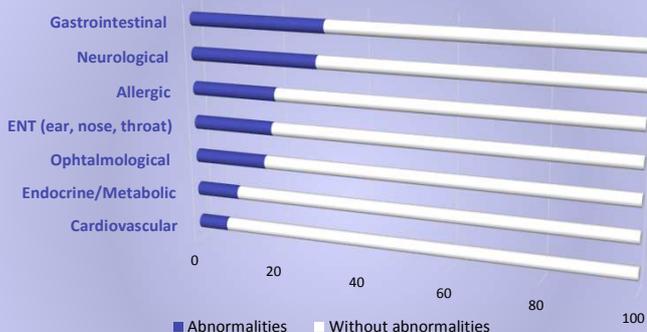


Figure 3: Gender and age distribution in the cohort (N=315)

Medical condition :

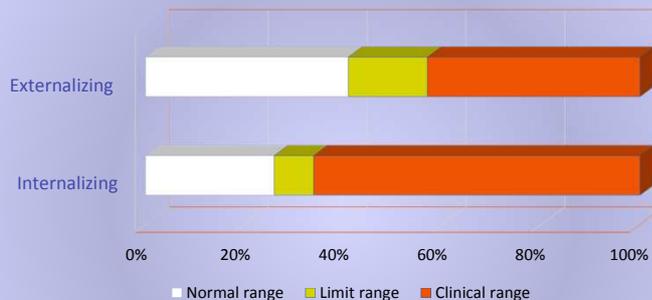
Figure 4 : Representation of the percentage rate of medical conditions



The most frequent medical conditions are gastrointestinal abnormalities (32% of the sample). The distribution of these gastrointestinal problems is: 11 % chronic constipation, 8 % gastro-esophageal reflux, 5% poor appetite, 4 % overeating, 3% chronic diarrhea, 2 % unexpected weight loss or weight gain.

Psychiatric symptoms :

Figure 5 : Proportion of psychiatric symptoms according to the Child Behaviour Checklist for ages 6-18 (N=73)



Our results, according to the Child Behaviour Check-list 6/18, shows clinical range of psychiatric symptoms especially a majority of internalizing problems (66 %) and also externalizing problems (42%). We found clinical range of psychiatric symptoms: 51 % of anxiety problems, 49 % of affective problems, 19% of oppositional defiant problems, 14% of hyperactivity and attention deficit problems, 7 % of conduct problems and 5 % of somatic problems.

Discussion:

As found in the literature, findings from the ELENA cohort report that gastrointestinal condition is the most frequent medical condition associated with ASD. Schieve and al., 2012 showed that children with ASD presents seven more times gastrointestinal problems to compare with typical children. And we found a high rate of co-occurring psychiatric symptoms, especially internalizing problems are present in 2/3 of the sample.

Conclusion:

These results confirmed the high frequency of medical conditions and comorbid symptoms in pediatric population with an ASD. These comorbidities have to be better identify and to be treated early to prevent their negative impact on behavior and development. This will contribute to improve the quality of life of the children with ASD themselves but also of their family.

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Reference: Schieve, L.A., Gonzalez, V., Boulet, S.L., et al. (2012) Concurrent medical conditions and health care use and needs among children with learning and behavioral developmental disabilities, National Health Interview Survey, 2006-2010. Research in developmental disabilities, 33; (2): 467-476.

