

Medical and Psychiatric Comorbidities in Children and Adolescent with ASD: ELENA Cohort



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Background and objectives

Medical conditions are more prevalent in people with ASD than in the general population. These conditions are often related to the occurrence of aberrant behaviors, under-diagnosed and not taken into account for prevention. This study aimed to better estimate the prevalence and risk factors of comorbidities in ASD among children and adolescents.

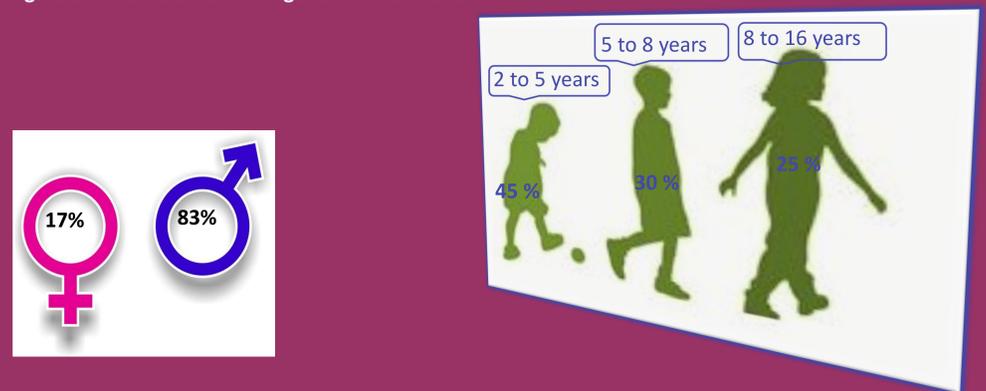
What is the ELENA cohort ?

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 and assessment according to ADOS, ADI and international criteria (ICD10). We expect to include around 1000 participants and to follow them until 10 years. Medical conditions are collected using an exhaustive and standardized parental questionnaire adapted from NIMH (the National Institute of Mental Health) and psychiatric symptoms using the CBCL (the Child Behaviour Checklist; Achenbach & Rescorla 2001). Only the data collected at the baseline are used for this study.

Figure 1 : Follow up study ELENA cohort

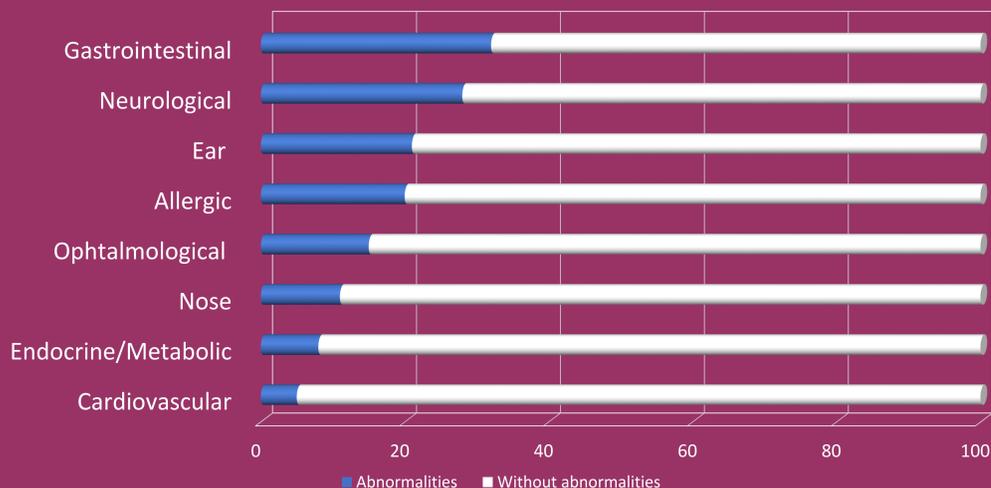


Figure 2 and 3 : Gender and age distribution in the cohort



Medical conditions

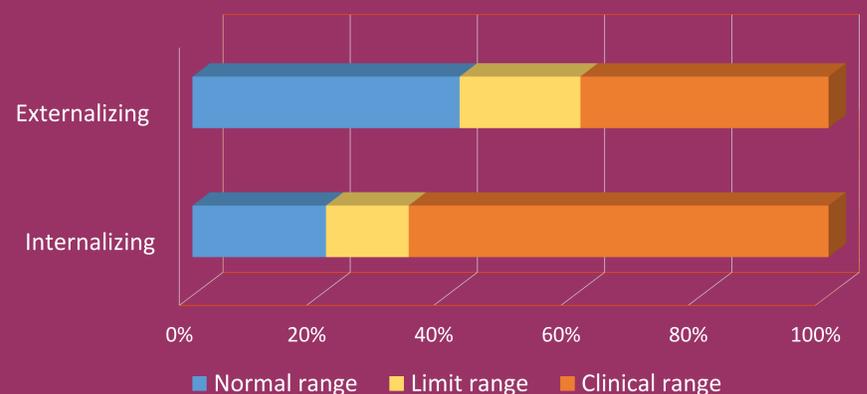
Figure 4 : Representation of the percentage rate of medical conditions



Our results shows that the most frequent medical conditions are gastrointestinal (32%) and neurological abnormalities (28%). The distribution of gastrointestinal problems is: 14.5 % chronic constipation, 11 % gastro-esophageal reflux, 7% poor appetite, 5% chronic diarrhea, 4.5 % overeating, 1.6 % unexpected weight loss or weight gain. About neurological problems, there are: 14 % of severe sleep disturbance, 10 % of tic movements, 5 % of headaches, 2.6 % of seizures with fever only, 2.3 % of epilepsy, 1.6 % of dystonia and 0.3 % of history of meningitis or encephalitis.

Psychiatric symptoms

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



According to the CBCL, our sample shows clinical range of psychiatric symptoms especially a majority of internalizing problems (66 %) and also externalizing problems (39%). We found clinical range of psychiatric symptoms: 54 % of anxiety problems, 46 % of affective problems, 17% of oppositional defiant problems, 17% of hyperactivity and attention deficit problems, 8 % of conduct problems and 7 % 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 psychiatric symptoms in pediatric population with an ASD. These comorbidities have to be better identified and early treated to prevent their negative impact on outcome trajectories. This will contribute to improve the quality of life of the whole family. Future studies could investigate the link between these comorbidities and developmental trajectories in ASD.

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