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Editorial Article

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Counseling the Increased Risk of Epilepsy in Pediatric Autism Spectrum Disorder

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Editorial

Presently, pediatric neurologists are seeing a record high incidence of Autism Spectrum Disorder (ASD) in clinic. While the increase is likely attributable to heightened awareness of psychiatric disorders and expanded diagnostic criteria in combination with legal changes in the requirements of services for individuals with ASD [1]; the increase necessitates swift implementation of new standards of care in treatment of patients with ASD. One study found that in a retrospective evaluation of 7003 patients with autism, 26.4% of them acquired the autism diagnosis after the practices for diagnosing autism were modified, likely indicating that the new diagnostic criteria casts a much wider net than it previously had [2] and early intervention is essential to improvement of outcome [3].

Physicians should stay up-to-date on current literature and practice high caliber care. ASD is a highly variable diagnosis and the symptoms are unique to each individual, so it is imperative that physicians and care providers are continuously screening children for any of the signs and/or symptoms that may be associated with ASD. According to the CDC, children should be screened for developmental delays during regular well visits and any signs of delay or symptomatology should be evaluated with a comprehensive evaluation [4]. Screenings for autism should begin taking place by 18 months, and children should be monitored for any symptom development or regression of abilities [5]. Any concerns for developmental delay or ASD warrants referral to an expert to determine whether the child meets the criteria for an ASD, global developmental delay, etc. Additionally, any child diagnosed with any form of developmental delay should be referred to early intervention services, which are provided free through the state until 3-years-old. Furthermore, vision and hearing screening is warranted in all children with suspected developmental delay or ASD.

An ASD diagnosis leads to high rates of comorbid medical conditions including but not limited to skin conditions, immunological conditions including allergies, higher rates of infections, gastrointestinal problems as well as neurological conditions such as headaches and seizures [6]. As such, it is essential to counsel parents and guardians of their child's increased risk of comorbid conditions and advise them to establish care in each specialty they may have concerns of symptom and condition development. Additionally there is an increased mortality rate in ASD with a three to ten times higher rate than the general population [6], so all conditions introduce a significantly higher risk of resulting death.

It is particularly important to explain the risk of comorbid epilepsy in pediatric ASD patients to caregivers. A report of the U.S National Survey of Children's Health found epilepsy risk in ASD patients to be seven-fold higher than in the neurotypical, general population [7]. Educating parents and caregivers about the heightened risk for epilepsy provides them with the necessary information to be able to monitor their children for

the development of symptoms. In the case of non-verbal autism, a child may not be able to communicate if they are having periods of unconsciousness or even convulsive episodes, so it is extremely important for those families to be able to identify the signs of seizures should they arise. Even when a child can communicate, they may not be aware of seizure activity, especially in the case of absence seizures where they do not convulse but may lose consciousness and lose track of time.

Why is it important for parents to recognize seizure activity early? Early intervention can help reduce the risk of repeated, long seizures which can result in physical injury and catastrophic trauma to the brain. Although uncommon, the risk for sudden unexpected death in epilepsy (SUDEP) is increased 24- to 28-fold among young people with epilepsy, and the most consistent risk factor is poorly controlled seizures [8]. Thus, identification and treatment of seizures, especially in the case of pediatric ASD cases, is crucial. Additionally, there are cases of individuals who do not have clinical seizures but exhibit subclinical epileptic form activity when monitored by EEG [6]. In these patients, therapeutic treatment can improve behavior as well as language and focus, which can be life changing for children with ASD who struggle to communicate. For those that fail treatment with anti-epileptic medications, vagus nerve stimulation (VNS) placement may be an effective alternative/addition [9].

References

1. Berg AT, Plioplys S. Epilepsy and autism: is there a special relationship? - PubMed - NCBI. Accessed October 3, 2017. doi: 10.1016/j.yebeh.2012.01.015
2. King M, Bearman P. Diagnostic change and the increased prevalence of autism. *Int J Epidemiol*. 2009; 38(5): 1224-1234. doi: 10.1093/ije/dyp261
3. Zwaigenbaum L, Bauman ML, Choueiri R, et al. Early intervention for children with autism spectrum disorder under 3 years of age: Recommendations for Practice and Research. *Pediatrics*. 2015; 136(1): 60-S81. doi: 10.1542/peds.2014-3667E
4. Facts About ASDs. CDC - Facts about autism spectrum disorders - NCBDDD. http://www.cdc.gov/ncbddd/autism/facts.html. Accessed October 3, 2017.
5. Zwaigenbaum L, Bauman ML, Fein D, et al. Early screening of autism spectrum disorder: recommendations for practice and research. *Pediatrics*. 2015; 136 (1): 41-S59. doi: 10.1542/peds.2014-3667D
6. (Charity) TA, (Charity) ATT. Medical comorbidities in autism spectrum disorders: a primer for health care professionals and policy makers. Exhibit A; 2013.
7. Thomas S, Hovinga ME, Rai D, Lee BK. Brief Report: Prevalence of co-occurring epilepsy and autism spectrum disorder: The U.S. National Survey of Children's Health 2011-2012. *J Autism Dev Disord*. 2017; 47(1): 224-229. doi: 10.1007/s10803-016-2938-7
8. Tomson T, Surges R, Delamont R et. Al. Who to target in sudden unexpected death in epilepsy prevention and how? Risk factors, biomarkers, and intervention study designs. *Epilepsia*. 2016; 57 (1): 4-16. doi: 10.1111/epi.13234
9. Levy ML, Levy KM, Hoff D et al. Vagus nerve stimulation therapy in patients with autism spectrum disorder and intractable epilepsy: results from the vagus nerve stimulation therapy patient outcome registry. *J Neurosurg Pediatr*. 2010; 5(6): 595-602. doi: 10.3171/2010.3.PEDS09153