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Editors' Note: In WriteClick this week, Dr. Sethi and authors Seneviratne et al. discuss the importance of differentiating seizure prodromes from focal seizure symptoms in patients with idiopathic generalized epilepsies. Responding to "The unruptured intracranial aneurysm treatment score: A multidisciplinary consensus," Dr. Mayer comments on the continued uncertainties involved in the decision to treat unruptured intracranial aneurysms. Authors Etminan et al. respond.

—Megan Alcauskas, MD, and Robert C. Griggs, MD

FOCAL SEIZURE SYMPTOMS IN IDIOPATHIC GENERALIZED EPILEPSIES

Nitin K. Sethi, New York: I read with interest the article by Seneviratne et al.[1] on focal seizure symptoms (FSS) reported by patients with idiopathic generalized epilepsies (IGEs). Many patients with IGEs report a seizure prodrome. The prodromal phase may start a few hours or even days before a seizure and patients may report changes in mood and behavior, irritability, insomnia, and difficulty concentrating. This prodromal phase should be distinguished from auras and FSS reported by patients with IGEs. I have also seen a few patients with EEG-confirmed IGEs who were misdiagnosed with focal epilepsy and started on narrow-spectrum antiepileptic drugs, such as carbamazepine, with excellent control of their seizures, which can further blur the margin between focal and generalized epilepsies.

Author Response: Udaya Seneviratne, Mark Cook, Wendyl D'Souza, Melbourne: We thank Dr. Sethi for his comments on our article[1] and agree that some patients report prodromal symptoms preceding seizures. The questionnaire was designed and validated to capture focal seizure symptoms immediately before, during, and after seizures rather than prolonged prodromes.[2] In the questionnaire, after the open-ended question on auras, patients were asked "How long did you feel that way before the seizure started?"; none reported prolonged symptoms suggestive of prodromes. Hence, our data reflect true FSS.

What auras and prodromes mean in IGE is unclear. There are no studies on electrographic correlations of these symptoms.[3] Intracranial EEG studies in focal epilepsy have shown discordance between patient-reported events and electrographic seizures.[4] The neurobiological and network implications of our findings remain speculative. As Dr. Sethi highlighted, the most important practical implication in IGE is the risk of misdiagnosis as focal epilepsy. Therefore, it is important for clinicians to be aware of the atypical features of IGE.

1. Seneviratne U, Woo JJ, Boston RC, Cook M, D'Souza W. Focal seizure symptoms in idiopathic generalized epilepsies. Neurology 2015;85:589–595.
2. Choi H, Winawer MR, Kalachikov S, et al. Classification of partial seizure symptoms in genetic studies of the epilepsies. Neurology 2006;66:1648–1653.
3. Seneviratne U, Cook M, D'Souza W. Focal abnormalities in idiopathic generalized epilepsy: a critical review of the literature. Epilepsia 2014;55:1157–1169.
4. Cook MJ, O'Brien TJ, Berkovic SF, et al. Prediction of seizure likelihood with a long-term, implanted seizure advisory system in patients with drug-resistant epilepsy: a first-in-man study. Lancet Neurol 2013;12:563–571.

THE UNRUPTURED INTRACRANIAL ANEURYSM TREATMENT SCORE: A MULTIDISCIPLINARY CONSENSUS

Thomas E. Mayer, Jena, Germany: The article by Etminan et al.[1] classified unruptured brain artery aneurysms on the basis of existing data and rationale for treatment decisions. However, the score scale has to be tested.

There is no sufficient evidence to treat unruptured aneurysms,[2] and valuable lessons were taken from the failed A Randomized Trial of Unruptured Brain Arteriovenous Malformations (ARUBA).[3] First, there are more points to gain for treatment than against treatment. To further judge the possible effect, the rate of occurrence of the single scores is necessary. Second, young age is supposed to favor treatment and low midterm life expectancy and risk of age would argue against treatment. However, the authors should consider that a 20-year-old patient who dies of an intervention has lost approximately 60 years of life. Since we do not know if treatment risk is equaled in 5, 10, 20, or more years of life,

young age should not be used as a treatment indication.

Author Response: Nima Etminan, Mannheim, Germany; Akio Morita, Tokyo; Seppo Juvela, Helsinki: We thank Dr. Mayer for the comments on our recent article.[1] As highlighted in the article, the proposed unruptured intracranial aneurysm (UIA) treatment score system requires further validation based on prospective data; this will commence shortly.

Due to the unique pathogenesis, natural history, and risk of treatment of UIAs, it is difficult to apply data from other entities (including arteriovenous malformations) to decide on the appropriate management of UIAs.[4] There are data from prospective cohort studies on UIAs that can guide decision-making, but many uncertainties remain.[5a–7] This is complicated by lack of risk factor data for UIA treatment. Even though the quantities "natural history of UIAs" (a risk event rate) and "risk of treatment" (a one-time risk) cannot be directly compared, existing data suggest that preventive repair may be warranted if the cumulative lifelong risk of UIA rupture, including the annual discount rate for the remaining lifetime, outbalances the risk of UIA repair.

Thus, the disproportionate distribution of factors favoring treatment reflects the higher number of factors determining UIA rupture risks vs factors determining the one-time risk (preventive treatment). Despite the limitation of subgroup selection, recent data on the significant lifelong rupture risks of younger patients with UIA underline the necessity for a critical assessment of these patients.[8]

1. Etminan N, Brown RD Jr, Beseoglu K, et al. The unruptured intracranial aneurysm treatment score: a multidisciplinary consensus. Neurology 2015;85:881–889.
2. Raymond J, Darsaut TE, Molyneux AJ; TEAM collaborative Group. A trial on unruptured intracranial aneurysms (the TEAM trial): results, lessons from a failure and the necessity for clinical care trials. Trials 2011;12:64.
3. Mohr JP, Parides MK, Stapf C, et al; for the international ARUBA investigators. Medical management with or without interventional therapy for unruptured brain arteriovenous malformations (ARUBA): a multicentre, non-blinded, randomised trial. Lancet 2014;383:614–621.
4. Brown RD Jr, Broderick JP. Unruptured intracranial aneurysms: epidemiology, natural history, management options, and familial screening. Lancet Neurol 2014;13:393–404.
5. Etminan N, Rinkel GJ. Cerebral aneurysms: cerebral aneurysm guidelines: more guidance needed. Nat Rev Neurol 2015;11:490–491.
6. Greving JP, Wermer MJ, Brown RD Jr, et al. Development of the PHASES score for prediction of risk of rupture of intracranial aneurysms: a pooled analysis of six prospective cohort studies. Lancet Neurol 2014;13:59–66.
7. Thompson BG, Brown RD Jr, Amin-Hanjani S, et al. Guidelines for the management of patients with unruptured intracranial aneurysms: a Guideline for Healthcare Professionals from the American Heart Association/American Stroke Association. Stroke 2015;46:2368–2400.
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CORRECTION

Practice Guideline: Idiopathic normal pressure hydrocephalus: Response to shunting and predictors of response: Report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology

In the Practice Guideline "Idiopathic normal pressure hydrocephalus: Response to shunting and predictors of response" by J.J. Halperin et al., there is an error in figure 1. The R_o value on the x-axis and in the sixth line of the figure legend should read >12, rather than ≥ 12 and <12, respectively, as originally published. The authors regret the error.

Author disclosures are available upon request (journal@neurology.org).

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