

Migraines & Chiari

Migraine headaches are common in the general population, affecting as many as 10% of adults in a given year. However, they are even more common among Chiari patients, with nearly two-thirds of the respondents to the Chiari1000 reporting they suffering from migraines. The link between Chiari and migraines is recognized in the medical community but to date has not been extensively studied. Earlier this year a study from Italy took an important step in this direction by carefully characterizing migraines among a large group of Chiari adults. The 230 adults were part of an even larger study on the epidemiology of Chiari (which had over 400 participants) and reported headaches as a symptom. Each participant underwent imaging and careful evaluation by a neurologist who used the International Classification of Headache Disorders (ICHD) to classify their headaches. The group also answered a number of questions about the duration, location, intensity, and aggravating and relieving factors associated with their headaches. Overall, about one-third of the 230 met the ICHD criteria for migraines, but interestingly most of the migraine sufferers also suffered Chiari type headaches as well. For reasons that are not at all clear, a significantly higher percentage of patients with Chiari only – versus Chiari and syringomyelia – experienced migraines (43% vs 23%). There were some significant differences in the headache characteristics between the migraine and no migraine groups. Specifically, those with migraines reported they had more nighttime headaches, more pulsing, more frontal headaches, more pain in the neck muscles and behind the eyes, and more sensitivity to light and sounds. However, there were no differences in aggravating factors such as coughing, laughing, singing, etc. In addition, age and gender did not seem to be a factor in whether someone had migraines or not. While for many migraines start in the forehead, side of the head, or behind the eyes, more than half of the Chiari migraine group reported pain in the back of the head. The authors note that there is recent evidence that migraines involving the occipital region (the back of the head) are linked to cerebellum disorders. In fact, they cite a different study that looked at the origins and paths of nerves in the posterior fossa dura of rats and traced them back to the second and third cervical region of the spinal cord. The authors note that these nerves pass through what are crowded areas in Chiari patients and that damage to these nerves can lead to occipital headaches and hyper-sensitivity to stimulation of the neck muscles. Given this, it would be valuable to identify these nerves in adults and investigate their role in both Chiari headaches and Chiari related migraines.

Source: Migraine in Chiari 1 Malformation: a cross-sectional, single centre study. Ciaramitaro P, Rota E, Ferraris M, Stura I, Migliaretti G, Cocito D. Acta Neurol Belg. 2021 May 28.

Conquer Chiari's research updates highlight and summarize interesting publications from the medical literature while providing background and context. The summaries do contain some medical terminology and assume a general understanding of Chiari. Introductory information and many more research articles can be found www.conquerchiari.org