

Letter to the Editor



Authors' Reply to Letter to the Editor: Influence of Gender on Occurrence of Chronic Subdural Hematoma; Is It an Effect of Cranial Asymmetry? (Korean J Neurotrauma 2014;10:82–85)

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Conflict of Interest

The author has no financial conflicts of interest.

Dear Dr. Marshman,

Thank you for your attention to my study titled “Influence of Gender on Occurrence of Chronic Subdural Hematoma; Is It an Effect of Cranial Asymmetry?”

As we know, the pathogenesis of chronic subdural hematoma (CSDH) is still unknown; however, recent insights suggest that CSDH does not always develop from trauma. In the era of an aging society, brain atrophy, and the use of antithrombotic medications could be important risk factors for increasing the incidence of CSDH.

This study could help us answer 2 questions. First, why do some patients experience repeated incidences of CSDH? The answer to this question may lie in the anatomic differences between CSDH and neurotypical controls. The mean cranium difference between right and left (Dc) was 3.49 mm in the CSDH group and 2.14 mm in the control group, representing a significant between-group difference (by *t*-test, $p < 0.05$). A large Dc and brain atrophy could result in cerebrospinal fluid filling the open intracranial space, rendering the area vulnerable to trivial trauma or tearing of the bridging vein.

Second, why do males have a higher incidence of CSDH? We found that the average male cranium is longer and wider than what is observed in females. Although the association between male sex and CSDH is still debated, our results suggest that sex-based differences do exist. Males tend to have an asymmetrical cranium diameter, with a larger diameter on the dominant side. Compared to females, males typically exhibit greater differences in diameter between the right and left sides. These differences may increase the incidence of CSDH in males.

Continued investigation of the pathogenesis of CSDH is necessary because we expect the incidence of CSDH to continue to increase along with societal aging. In addition to brain atrophy, intracranial pressure changes, and anatomical differences seem to influence the pathogenesis of this condition.

Sincerely,
Jae Sang Oh