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LETTER TO THE EDITOR

Correspondence: Morphological features of the greater occipital nerve and its possible importance for interventional procedures

Abstract

This response applauds Saglam et al.'s (2023) recent study on the greater occipital nerve's anatomy while urging readers to consider earlier pivotal studies overlooked. It emphasizes how prior research has significantly shaped headache treatments and provides valuable insights for future practices and discussions.

Dear Editor,

We read, with great interest, the recent publication on "Morphological features of the greater occipital nerve and its possible importance for interventional procedures" by Saglam et al. (2023). As the authors point out, a thorough understanding of the intricate and detailed anatomy of the greater occipital nerve (GON) is essential when performing injections (both blocks and botulinum toxin) as well as surgery. While the authors indicate there are "novel anatomical findings" in their study, in essence, the vast majority of their findings have been previously described, though not referenced. We would encourage readers to explore previously published studies, particularly Janis et al.'s studies (Janis, Hatef, Ducic, et al., 2010; Janis, Hatef, Reece, et al., 2010), which characterize, define, and describe the six compression points and their relationship to the occipital artery, as mentioned in Saglam's paper. These findings help inform and enrich the discussion on the GON and occipital artery (OA) morphology and have advanced our understanding of diagnosis and treatment strategies.

Pivotal studies, absent from Saglam's literature review, have delved into the GON's intricate three-dimensional anatomy, trajectory, and compressive interactions. Specifically, Ducic et al. (2009) and Güvençer et al.'s (2011) research provided in-depth anatomical insights into nerve path variations; a knowledge base further expanded by Guyuron et al. (2015). Additionally, Cornely et al. (2011), Israel et al. (2018), Gfrerer et al. (2019, 2020), and Janis et al.'s (Janis et al., 2014; Janis et al., 2022) studies have all illuminated essential anatomical relationships and guided the development of precise decompressive surgical techniques. Further emphasizing the significance of understanding nerve anatomy, meta-analyses by ElHawary et al. (2022) and Huayllani and Janis (2023) and systematic review by Robinson et al. (2021) underscores the complexities of the GON, collectively enhancing our understanding and informing effective headache treatments.

Decades of in-depth anatomical research have paved the way for improved diagnoses and interventions, revolutionizing surgical treatment for headaches. Janis et al. (Janis et al., 2011; Janis et al., 2017) and Rangwani et al. (2021) have helped validate the success of botulinum toxin treatment and emphasized the importance of effective nerve blocks for chronic migraines. Kim et al. (2018) and Shin et al.'s (2018) research established precise nerve detection techniques and standardized injection points, ensuring safer clinical interventions. Additionally, Ormseth et al.'s (2023) meta-analysis highlighted the effectiveness of peripheral nerve surgery in significantly reducing migraine days and attacks. Since its inception in 2000, headache surgery, spearheaded by plastic surgeons, has experienced substantial growth outlined by ElHawary et al. (2021) and Blake et al. (2022). These breakthroughs have not only enhanced patient relief but also substantially improved their overall quality of life.

While Saglam's recent publication highlighted important aspects of the GON's morphology, it is essential to recognize the wealth of knowledge provided by earlier studies, overlooked in their review. The culmination of decades-long research has transformed headache treatments and offered valuable insights for future research and clinical practice. In short, we encourage readers to explore these prior studies augmenting discussions on the GON and OA's morphology.

Sincerely,

CONFLICT OF INTEREST STATEMENT

Dr. Janis receives royalties from Thieme and Springer Publishing. All other authors have no conflict of interest.

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