Discussion: Occipital Artery Vasculitis Not Identified as a Mechanism of Occipital Neuralgia–Related Chronic Migraine Headaches

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Occipital neuralgia is a disabling, dolorous condition that drastically changes the quality of life for afflicted patients. Although the significance of this condition and its clinical presentation have been defined, the cause and the effects of this disabling entity remain unclear. The collective recent interest in the management of head and neck pain, which is often related to peripheral mechanisms, provides a proper platform and rationale for this study. Although our studies have demonstrated the constriction points along the occipital nerve,1–9 the reality is that the specific mechanism underlying occipital neuritis as opposed to migraine headaches is not clearly understood. This article by Ducic et al. convincingly negates any possibility of occipital neuritis being related to an inflammation of the occipital artery. Although most of the time positive findings are expected from studies, negative findings can also be equally meaningful. This study rules out one potential cause of occipital pain. The role of the proximity of the artery, documented in a variety of sites, is most likely a cardinal one in occipital neuritis. However, it is also likely that a variety of mechanisms contribute to this condition and migraine headaches individually or collectively. It is enigmatic that, although the nerves and artery run together within the neurovascular bundles, the artery does not always irritate the nerve on every patient. Therefore, there has to be a vulnerability of the nerve that potentiates the inflammation and the subsequent release of substance P and neurokinins that result in pain. What makes this matter more puzzling is that even on the same patient, the pain can be unilateral, which reduces the power of a central phenomenon theory or a general-ized nerve disposition for irritation. Otherwise, the pain would be bilateral in every patient. It is possible that some deficit in the myelin and lack of sufficient protection of the axons is what makes the nerve more prone to being stimulated. However, this remains to be proven. It is also quite likely that more than one mechanism evokes nerve irritation, such as the presence of a tortuous vessel along with fascia bands and constriction points along the course of the nerve that results in nerve constriction. As vasodilation occurs, the nerve is mechanically compressed or irritated. Although the outcomes of surgery by this author and our group have validated this hypothesis, true scientific evidence is lacking, and there is a dearth of basic science support. It is therefore our responsibility to investigate each mechanism individually in depth as was done in this report. Dr. Ducic and his research team should be congratulated for devoting so much time and energy to an area of plastic surgery that is most rewarding and changes the quality of life for the patient enormously.

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REFERENCES

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**Future Meetings—American Society of Plastic Surgeons**

The following are the planned sites and dates for future annual meetings of the American Society of Plastic Surgeons:

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<thead>
<tr>
<th>Year</th>
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<td>2012</td>
<td>New Orleans, La.</td>
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