



Facial Nerve Decompression for Bell's Palsy: An Endless Debate

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For more than 30 years, surgical indications for patients with Bell's palsy have been the subject of debate [1]. It is difficult to prove the surgical effects of facial nerve decompression on Bell's palsy because many factors can influence surgical outcomes, such as patient selection, the timing of the surgical intervention, and the surgical method and approach. Variation in these factors makes it difficult to demonstrate the effects of surgery on such an uncommon disease. Furthermore, to demonstrate a definitive effect of any treatment in clinical studies, it is necessary to conduct well-designed, randomized, double-blind studies that show a statistically significant difference between groups. However, double-blind studies of surgical interventions are not possible, and clinicians may be vulnerable to selection bias in real-world practice; all of these factors have prevented randomized controlled studies of surgical treatment for Bell's palsy from being conducted.

A recent Cochrane review found insufficient evidence to recommend surgical intervention for Bell's palsy given the lack of randomized controlled trials [2]. The American Academy of Otolaryngology-Head and Neck Surgery clinical guidelines committee on Bell's palsy could not conclude whether decompression of the facial nerve is effective [3]. Therefore, it may be reasonable to state that the effect of surgical treatment on Bell's palsy has not yet been proven. However, this does not mean that the surgical intervention is ineffective, but rather that there is insufficient evidence because it is difficult to prove the therapeutic effect of the surgical intervention. Most treatment modalities for facial paralysis also need to be approached from this point of view. In other words, although we cannot encourage patients to undergo a surgical intervention, we can propose surgery as a treatment option, as was suggested in the systematic review and meta-analysis by Lee et al. [4].

The decision to proceed with surgery for Bell's palsy should be customized for each patient and surgeon, because the risk-benefit ratio should be analyzed on an individual basis according to each surgeon's training and experience [5]. However, irre-

spective of the surgeon's experience, a reasonable rationale for the surgical intervention is mandatory. The results of electroneurography and a voluntary electromyogram should indicate progressive and irreversible facial nerve degeneration, which can be averted by surgical decompression of the facial nerve. The middle cranial fossa or transmastoid/translabyrinthine approach can provide an optimal surgical view sufficient for decompression of the specific site depending on the underlying cause and imaging and audiogram findings. A definitive surgical plan should not be too early or too late to induce an effective neural regeneration. Since these considerations are indisputable, having a deeper understanding of the pathophysiology of Bell's palsy is more important than simply following controversial surgical indications.

Recently, the number of reports about this issue has decreased, according to large-scale data gathered from Google Scholar and PubMed (from inception through 1999: 47 articles, 2000–2009: 18 articles, 2010–2019: 14 articles), but the number of papers about facial reanimation and tissue engineering in this field has increased. In the future, we can expect that well-designed studies of surgical interventions for facial nerve paralysis with statistically significant conclusions will emerge. In the future, it is expected that there will be various advanced treatments associated with or without facial nerve decompression in patients with severe Bell's palsy to minimize facial complications.

CONFLICT OF INTEREST

No potential conflict of interest relevant to this article was reported.

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