

Author's Response

Response to the Letter Regarding "Intratympanic Administration of Edaravone for Sudden Sensorineural Hearing Loss: A Prospective Case Series with Historical Controls"

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Our study aimed to investigate the potential of a new treatment for sensorineural hearing loss (SNHL) with severe hearing loss, which has shown extremely poor treatment outcomes with conventional therapies. We hypothesized that reactive oxygen species (ROS) influence the pathophysiology of SNHL during its early stages and evaluated the clinical application of edaravone, an ROS scavenger, in the treatment of SNHL. Therefore, the study population was limited to patients with SNHL and severe hearing loss (average hearing level of ≥ 90 dB) who initiated treatment within three days of onset. Collecting cases that meet these criteria at a single institution is challenging. Thus, we conducted a single-arm study with a relatively small number of cases to determine whether this treatment is potentially superior to intratympanic steroid therapy in terms of treatment efficacy, while also assessing the potential side effects of this treatment. As pointed out, it is essential to conduct an RCT to determine whether this treatment is truly more effective than the intratympanic injection of steroids. Our study found that this possibility exists and that no side effects were observed. We are currently planning further studies, including an RCT, to address these issues.

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