Wide Variance in the Management of Idiopathic Sudden Sensorineural Hearing Loss

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INTRODUCTION

Idiopathic sudden sensorineural hearing loss (ISSNHL) is a relatively rare event that affects between 5 and 20 people per 100,000 population every year. (1,2) Careful work-up is necessary to rule out identifiable/treatable causes.

Despite diverse efforts in basic science and clinical outcomes research, published evidence regarding ISSNHL, there are no clear-cut official guidelines from any specialty organization concerning the diagnosis and treatment of ISSNHL. This reflects the paucity of strong evidence to support the efficacy of any one treatment modality or algorithm. (3)

METHODS

In January 2016, a survey was mailed to 2001 otolaryngologists across the United States analyzed using SPSS standard statistics, variance, and other tools. (4,5)

RESULTS

A wide variety and distribution of responses were seen in the definitions of ISSNHL, including definitions of the level of hearing loss (dB), definition of frequency of hearing loss (8 dB, 15 dB, 20 dB, 25 dB, 30 dB, >35 dB), and the timing of hearing loss (0, <5 days, 7 days, 10 days, 14 days, 21 days, >21 days).

METHODS AND MATERIALS

In January 2016, a multiple choice survey was mailed nationwide to 500 NOH and 500 OSI. The survey was approved by the Institutional Review Board. Response rate was 69% (391/560 received, 127/127 from each group). The 14 item survey addressed physician demographics (practice type, years in practice, specialty type of physician), patient demographics (number of patients seen, number of distinct patients during hearing loss and initial visit, definition of ISSNHL, panel of dB loss, number of frequency loss and duration of hearing loss). The survey presented two parts of the survey, one to defineatory and/or test-like, and, the other to defineatory and/or test-like with a referent or combination of both. Survey required specifications of medication, medication concentration, note frequency, duration, number of patients seen, prior to re-evaluation, and definition of endpoints. Respondents were then given a multiple choice, and, to determine which they preferred, and we then contrasted on their comfort scores in both the diagnosis and treatment of ISSNHL.

Data were compiled in Excel® (Microsoft, Bellevue, WA) and tabulated into Microsoft® Access (Microsoft, Bellevue, WA). Fathers Exact Test and ORTANA techniques using Excel® Version 9.2 (CA, NY).

RESULTS

Patient Demographics

Table 1: Comparison of patients with ISSNHL, versus 20% of ON, 45.8% of NON vs. were uncomfortable in diagnosing ISSNHL. Analysis of variance (ANOVA) and two-tailed Fishers Exact Test, and ANOVA.

RESULTS

Initial Treatment

Figure 8. Final treatment (Huang, S), Intratympanic corticosteroids. (5)

DISCUSSION

ISSNHL can have severe and lasting effects on those unfortunate patients who suffer from this condition. Unfortunately, despite decades of study, much remains unknown regarding the etiology and natural course of this disease. As a result, clear guidelines are lacking with respect to management.

The main aim of this study was to investigate whether management styles vary in the diagnosis and treatment of ISSNHL. These results clearly denote wide disparate methods of diagnosis and treating ISSNHL, are employed by both general and subspecialty otolaryngologists, although some differences between non-neurologists/neurologists were seen. Without a clear understanding of the pathophysiology, outcome parameters become unreliable as distinct processes may be occurring simultaneously. This also reflects a lack of evidence to support any particular modality or algorithm. Despite widespread use of steroids (systemic and intratympanic), the Cochrane Review and other studies (3,4,11) of steroid use in the treatment of ISSNHL were inconclusive in the efficacy of steroids in improving outcomes.

Conclusions

1. Significant variance exists in the diagnosis of ISSNHL, whereas 43.3% of NON and 35.9% of ON felt comfortable in diagnosing ISSNHL.

REFERENCES