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The effect of masking on tinnitus: Residual inhibition outcomes by different types of tinnitus maskers

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Abstract

The phantom auditory sensation or tinnitus can be suppressed by presenting external sounds. Residual inhibition (RI) method is typically used in clinical settings to determine the suppressive ability of sounds towards tinnitus. The present study aimed to compare the RI outcomes produced by broadband noise (BBN), Amplitude modulated (AM) and ocean wave (OW) sounds in subjects with tinnitus. Employing a repeated measures design, fifteen eligible subjects with the main complaint of subjective and continuous tinnitus were enrolled in this study. The mean age of subjects was 47.0 years and 53.3% of them were males. Generally, most of the subjects showed the presence of RI (either full or partial RI) for all stimuli. The percentage of subjects who showed RI was the highest for the OW sound (86.7%). The percentage of subjects with RI effect was similar for BBN and AM tone (i.e., 73.3%). The non-parametric Friedman test found the duration of suppression to be not statistically different between the three stimuli ($p = 0.162$). To conclude, the occurrence of RI was the highest for the OW sound. On the other hand, the duration of RI was comparable between the three stimuli. The information gathered from this study might be useful for clinicians in choosing the optimum masker for sound therapy. Further studies with larger samples are encouraged to ascertain the present study findings. © Nova Science Publishers, Inc.

Author Keywords

Amplitude modulated tone; Broadband noise; Ocean wave; Residual inhibition; Tinnitus

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