

Summating potential and action potential area ratio best for detecting Meniere disease: Study

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Compared with summating potential (SP) amplitude value by tone burst

stimulation, SP/action potential (AP) area ratio by click stimulus has higher sensitivity and specificity for detecting Meniere disease (MD), according to a study [published](#) online Feb. 28 in *Otolaryngology-Head and Neck Surgery*.

Naif Bawazeer, M.D., from the University of Montreal, and colleagues conducted a retrospective comparative study involving 95 patients with MD who met the inclusion criteria for electrocochleography (ECoChG) testing in a tertiary care center.

The SP amplitude value performed by a transtympanic electrode and a click [stimulus](#) (TT-CS), the SP/AP area under the curve ratio performed by an extratympanic electrode and a click stimulus (ET-CS), and the SP amplitude value performed by a transtympanic electrode and tone burst stimulus (TT-TBS) were compared.

The researchers found that sensitivity and specificity were 88.5 and 70.0%, respectively, for the SP/AP area ratio by a TT-CS compared with 60.0 and 55.6%, respectively, for the SP amplitude value by a TT-TBS.

For detecting MD, the SP/AP area ratio by TT-CS was significantly better than SP amplitude value by TT-TBS. No difference was seen between the SP/AP area ratio by ET-CS and SP [amplitude](#) value by a TT-TBS.

"ECoChG would be extremely useful in the diagnosis of MD if we use the SP/AP area ratio," the authors write. "Larger prospective studies with normal healthy subjects are recommended to generalize these finding."

More information: Naif Bawazeer et al, Click SP/AP Area Ratio

Vesrus Tone Burst SP Amplitude to Diagnose Ménière's Disease Using Electrocochleography, *Otolaryngology–Head and Neck Surgery* (2024).
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