Electrical suppression of tinnitus.

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The occasional suppression of tinnitus during electrical stimulation of the ear with positive currents has been investigated in 106 patients presenting with any degree of hearing impairment (whether of known or unknown aetiology) from profound deafness to near-normal pure-tone thresholds. Seventy-four percent of these patients presented with tinnitus localized in the ipsilateral ear at the time of examination. The suppression was totally effective in 60% of patients during stimulation through a round-window electrode. The suppression, partial or complete, was obtained in only 43% of patients when stimulation was from the promontory electrode, which served first as a recording electrode for electrocochleography. The sensations (hearing induction and/or tinnitus suppression, and dizziness) during and after the stimulation were evaluated with respect to polarity, intensity and frequency of the electrical impulses. This procedure had several objectives: (1) to confirm the eventual suppression of tinnitus by positive currents; (2) to serve as a tool to differentiate between various types of tinnitus; (3) to assess the possible clinical application for the long-term relief to some patients suffering from tinnitus; (4) to evaluate the possibility of artificial auditory stimulation in profoundly deaf subjects; and (5) to bring some hope to highly disturbed patients.