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Growth-Factor Gel Shows Promise as Hearing-Loss Treatment

A new treatment has been developed for sudden sensorineural hearing loss (SSHL), a condition that causes deafness in 40,000 Americans each year, usually in early middle-age. Researchers writing in the open access journal BMC Medicine describe the positive results of a preliminary trial of insulin-like growth factor 1 (IGF1), applied as a topical gel.

Takayuki Nakagawa, from Kyoto University, Japan, worked with a team of researchers to test the gel in 25 patients whose SSHL had not responded to the normal treatment of systemic glucocorticoids. He said, "The results indicated that the topical IGF1 application using gelatin hydrogels was safe, and had equivalent or superior efficiency to the hyperbaric oxygen therapy that was used as a historical control; this suggests that the efficacy of topical (IGF1) application should be further evaluated using randomized clinical trials."

At 12 weeks after the test treatment, 48% of patients

showed hearing improvement, and the proportion increased to 56% at 24 weeks. No serious adverse events were observed. This is the first time that growth factors have been tested as a hearing remedy. According to Nakagawa, "Although systemic glucocorticoid application results in hearing recovery in some patients with SSHL, approximately 20% show no recovery. Topical (IGF1) application using gelatin hydrogels is well tolerated and may be efficacious for these patients."

Editor's Note: This article is not intended to provide medical advice, diagnosis or treatment.