

Bilateral cochlear implants: A case when 2 are definitely superior to 1

29 May 2008

A study of cochlear implant patients seen by Indiana University School of Medicine physicians is the first research to show evidence that cochlear implants in both ears significantly improves quality of life in patients with profound hearing loss and that the cost of the second implant is offset by its benefits.

The study, which appears in the May issue of the journal *Otolaryngology-Head and Neck Surgery*, found that improvements in factors that contribute to quality of life including such critical abilities as hearing in noisy environments, focusing on conversations, and speaking at an appropriate volume resulted when cochlear devices were implanted in both ears.

This study may have a significant impact for profoundly deaf individuals who hope to have their health insurance providers pay for bilateral rather than the standard single cochlear implant. The study authors found the benefits of the second implant outweighed the added cost of the second device.

“We didn’t know that cognitive skills and emotional issues would so significantly improve with the implantation of a second cochlear device. In addition to the physiological improvements we saw in patients who had bilateral implants, we found that patients were able to function better in noisy environments and definitely felt better about themselves,” said senior study author Richard Miyamoto, M.D., Arilla Spence DeVault Professor and chairman of the Department of Otolaryngology–Head and Neck Surgery.

Dr. Miyamoto is the immediate past president of the American Academy of Otolaryngology-Head and Neck Surgery. First author of the study is Bradford G. Bichey, M.D., MPH, a former research fellow and resident at the IU School of Medicine and currently an otolaryngologist in Marion, Ind.

“Profoundly deaf individuals who were born with hearing, their families, physicians, and health insurance providers now have the data they need,” said Dr. Miyamoto. “There is definite improvement after one implant and there is a significant added bump in sound and speech perception after the second implant. Emotional well being improves. And we found a favorable cost utility analysis. Our hope is that with these findings more health insurance companies will cover the cost of bilateral implants and bring a superior quality of life to a large number of individuals.”

Approximately 1.4 million American are deaf in both ears and experience significant impairment in communication with the hearing world according to the study authors. The IU School of Medicine cochlear program is one of the largest in the country. IU physicians have implanted more than 1,500 cochlear devices over the past quarter century at Indiana University Hospital and Riley Hospital for Children.

Source: Indiana University

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