

Estudio número 7

Audífonos de conducción cartilaginosa para la hipoacusia transmisiva severa.

Este estudio de casos consecutivos y prospectivos pretende evaluar los beneficios de un nuevo tipo de audífonos que utilizan la conducción por cartílago en pacientes con hipoacusia transmisiva severa, y evaluar su potencial para el uso práctico.

Fueron analizados para este estudio 41 sujetos (21 con atresia aural bilateral, 15 con atresia aural unilateral y 5 con otras alteraciones). Se realizaron adaptaciones y ajustes de ganancia de los audífonos de transmisión cartilaginosa en el (los) oído (s) con hipoacusia de conducción. Se han medido las ganancias obtenidas con los audífonos y se realizaron mediciones de las funciones de intensidad del habla, tolerancia al ruido ambiental y cuestionarios de los sujetos, y se evaluaron de acuerdo con las Directrices para la Evaluación del Ajuste de Audífonos, establecidas por la Japan Audiological Society.

Los umbrales se mejoraron significativamente con audífonos de transmisión cartilaginosa. Las ganancias funcionales para dichos audífonos fueron casi equivalentes a las de sus audífonos usados previamente. La forma de la fijación del transductor y el tipo de atresia auditiva no tuvieron influencia significativa en las ganancias funcionales. La mayoría de los resultados de la evaluación se consideraron suficientes. Antes del ensayo, los audífonos de conducción ósea habían sido utilizados con mayor frecuencia por sujetos con atresia aural bilateral. Sin embargo, después de la prueba, la mayoría de los sujetos continuaron usando audífonos cartilaginosos en lugar de volver a su dispositivo original. No se observaron efectos adversos graves en el ensayo. Los audífonos de conducción por cartílago podrían ser una opción adicional y beneficiosa para la pérdida de la audición severa en las atresias del oído.

Cartilage Conduction Hearing Aids for Severe Conduction Hearing Loss.

Objective: To assess the benefits of a new type of hearing aid using cartilage conduction (CC) in patients with severe conduction hearing loss and evaluate its potential for practical use.

Study design: Consecutive, prospective case series.

PATIENTS: Forty-one subjects (21 with bilateral aural atresia; 15 with unilateral aural atresia; and 5 others) participated in this study.

Intervention: Fitting and gain adjustments of the CC hearing aids were performed to the ear(s) with conduction hearing loss.

Main outcome measures: The function gains were measured. Evaluation of the measurements of speech performance-intensity functions, speech recognition scores, tolerance of environmental noise, and subject questionnaires were also performed, and judged according to the "Guidelines for the evaluation of hearing aid fitting" established by the Japan Audiological Society.

Results: The thresholds were significantly improved by CC hearing aids. The functional gains for CC hearing aids were nearly equivalent to that for their previously used hearing aids. The style of the transducer fixation and the type of aural atresia had no significant influence on the functional gains. Most of the assessment results

were judged to be sufficient. Before the trial, bone conduction hearing aids had been used most frequently by bilateral aural atresia subjects. However, after the trial, most subjects continued to use CC hearing aids instead of reverting back to their original device. Overall, 39 subjects continued use of the CC hearing aids. No severe adverse effects were noted in the trial.

Conclusion: Cartilage conduction hearing aids could be an additional and beneficial option for severe conduction hearing loss from aural atresia.

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