

Effects of Renal Transplantation on Hearing and Ocular Changes in a Monozygotic Twin with Alport's Syndrome: Comparison with Other Twin on Hemodialysis

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Aim. To present a unique case of Alport's syndrome in monozygotic twins with two different treatment modalities – renal transplantation and hemodialysis, and to evaluate the effects of therapy on hearing and ophthalmological findings.

Methods. Pure-tone audiogram and ophthalmologic examinations were performed in both twins at the age of 30. At the age of 46, 4 years after renal transplantation in the first twin and after 6 years of hemodialysis in the second twin, both twins underwent control audiometric and ophthalmologic examinations.

Results. Control audiometric measurements showed the progression of bilateral sensorineural hearing loss in the high-frequency range (>2,000 Hz) in both twins. The hearing threshold progressed from initial 50 dB in both twins at the time of the diagnosis to 55 dB in the twin on hemodialysis, and 85 dB in the twin with a transplanted kidney. Retinal blurry hyperpigmentations disappeared in the twin with a transplanted kidney.

Conclusion. In comparison with hemodialysis, renal transplantation in Alport's syndrome may have deleterious effect on hearing, when associated with plasma hyperviscosity and hyperlipidemia, but may lead to regression of retinal hyperpigmentation.

Key words: *Alport's syndrome; hearing impairment; hemodialysis; kidney failure, chronic; monozygotic twins; nephritis, hereditary; ocular changes; renal transplantation*