

PREVALENCE OF SPATIAL PROCESSING DISORDER AND REMEDIATION IN CHILDREN WITH CLEFT PALATE

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BACKGROUND: Spatial processing disorder (SPD) is manifested as difficulty understanding speech in a noisy environment despite normal standard audiometric testing. The Listening in Spatialized Noise–Sentences (LiSN-S) test has been developed to reliably diagnose SPD. Rates of SPD are significantly higher in children who have a history of otitis media during early childhood. The prevalence of otitis media in children with cleft palate is also significantly higher than the general population, and therefore this study aimed to determine the prevalence of SPD in this vulnerable population for the first time.

METHODS: Children with repaired cleft palate between ages 6-16 years were recruited. Those with normal audiograms and absence of current ear disease were included in the study. Participants underwent the LiSN-S test, and a subset of patients underwent remediation with a previously validated software training program.

RESULTS: Eight patients (40%) were found to have SPD. Four additional patients were found to have signal-to-noise ratio losses greater than 2 dB from the mean, representing substantial loss in speech intelligibility. Three children underwent remediation using the software training program; all saw substantial benefit.

CONCLUSION: Spatial processing disorder is a relatively unknown disorder that can be confused with attention deficit or other behavioural disorders. Children with cleft palate are at high risk of developing SPD which can be detrimental for learning. As therapy for this disorder has recently been developed, prompt identification and intervention may improve the learning experience of affected children.