Comparisons Between the Results of Probe Tube Microphone and Aided Threshold Measurements in Children with Sensorineural Hearing Loss

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This study compared the results of probe tube microphone measurement and aided threshold measurement in children with severe and profound sensorineural hearing loss. The performance of hearing aids was measured in 19 children aged between 7 to 12 years using probe tube microphone and aided threshold measurements. The difference between required real ear gain (RREG) and real ear insertion response (REIR) and the difference between required aided threshold (RAT) and measured aided threshold (APB) were calculated and compared. Results showed that there were positive correlation between probe tube microphone and aided threshold measurements at all frequencies tested. The results of this study highlighted the fact that the evaluation of hearing aid performance in the children with severe to profound sensorineural hearing loss can be done either using probe tube microphone or aided threshold measurement.