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CAN BRAIN STEM AUDIOMETRY BE USED AS A DIAGNOSTIC TOOL IN PSYCHIATRY?

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Introduction

Prior studies have suggested that patients suffering from schizophrenia and ADHD may process certain sound stimuli in the brainstem in an unusual manner. When these patient groups have been examined with the electrophysiological method of brainstem audiometry, some studies have found illness-specific aberrations. Such aberrations may also exist for patients suffering from bipolar disorder.

Aims

To explore the use of the method of brainstem audiometry as a diagnostic tool in psychiatry.

Methods

5 individuals with confirmed clinical diagnoses of schizophrenia, ADHD, and bipolar disorder, respectively, were examined with brainstem audiometry in a non-blind, comparative study. The data derived from the patient groups was compared to data from a control population according to a previously arranged data algorithm (SD-BERA).

Results

There was a full match between clinical diagnosis and diagnosis by means of brain stem audiometry for 4 of the 5 patients suffering from schizophrenia (1 mismatch), 4 of the 5 patients suffering from bipolar disorder (1 patient was given a second audiometric diagnosis of schizophrenia), and 3 of the 5 patients suffering from ADHD (1 patient was given a second audiometric diagnosis of bipolar disorder and 1 patient was a mismatch).

Conclusions

Brainstem audiometry shows promise as a diagnostic tool, but blinded studies are needed to examine the diagnostic properties and validity of this method.

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