Tilmelding af Foredrag

Foredragets titel

Prediction of Sensorineural Hearing Loss in Patients with Central Nervous System Infections using MRI

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Uddannelsesniveau

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Introduktion

The aim of the present study was to determine the diagnostic accuracy of MRI cochlear gadolinium enhancement and FLAIR signal hyperintensity for predicting the development of sensorineural hearing loss (SNHL) in adults with bacterial meningitis, viral meningitis, viral encephalitis and Lyme neuroborreliosis (LNB).

Materiale/metode

A retrospective multicenter study was performed. Of 143 unselected adults admitted with CNS infection, 28 patients (median age 53 years, range 22-80 years) who had undergone a brain MRI and a pure-tone audiometry were included. Blinded to audiometric outcome, a neuroradiologist rated each inner ear for enhancement using a postcontrast T1-weighted (T1-weighted+C) MRI sequence and signal intensity using a FLAIR MRI sequence.

Resultater

The median time from admission to MRI and audiometry were 4.5 days (range 0-40 days) and 11.5 days (range 1-170 days) respectively. SNHL affected 14 patients (50%), occurring in 26 of 56 ears as follows; bacterial meningitis, 10 of 18 ears; viral meningitis, 3 of 14 ears; viral encephalitis, 4 of 6 ears; LNB, 9 of 18 ears. Sensitivity of T1-weighted+C could not be calculated, but the specificity was 97%. FLAIR had a sensitivity of 50% and specificity of 50%.

Diskussion

Brain MRI is not suited for detecting labyrinthitis and thereby predicting SNHL among adults suffering from CNS infection in all hospital settings. MRI studies with T1-weighted sequences dedicated to visualizing enhancement, with low sensitive to susceptibility, axial images, fat saturation and a slice thickness of less than 5 mm seems to be required in order to assess the inner ear reliably.

Unavngivet

- Ønsker kun præsentation af poster

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