DAREMUS
Dansk Selskab for Forskning i Multipel Sklerose

Abstract form: Max 350 ord (punkt 3 – 6) på max én A4 side

Ønsker deltagelse i foredragskonkurrencen (4 abstracts udvælges): JA (X) ; NEJ ( )

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Følgende struktur bedes fulgt:

1) Titel

Sensitive assessment of acute optic neuritis by a new digital flicker test.

2) Forfattere

Gorm Pihl-Jensen, Susanne Trauzettel-Klosinski, Jette Frederiksen

3) Hypotese

ON is primarily a clinical diagnosis but clinical tests with increased sensitivity, and tests which predict MS risk in the ON patients, are needed. The Aulhorn flicker test was shown in the 1980's to effectively diagnose acute ON. The aim of this study was to examine the applicability of a new, digitalized version of the analog test for examination of acute optic neuritis (ON).

4) Metoder

A psychophysical test where the subjective brightness of a steady field has to be adjusted to that of a flickering field of randomized varying frequencies 0-60 Hz. Recorded luminances are then plotted against frequencies. The normal curve shows a brightness-enhancement at medium frequencies (Brücke-Bartley-effect (BBE)) whereas the ON curve is hypothesized to show darkness enhancement and a cancelled BBE at these frequencies. Visual acuity (VA, ETDRS) and flicker test measurements were obtained in acute ON patients (referred within 1 month of onset). 52 consecutively referred, untreated ON patients were included (bilateral symptoms in 5/52).

5) Resultater

Mean logMAR VA was 0.52 (SD:0.58) and mean age 37.1 year (SD:11.2). The flicker test was performed 22 days (SD:15) following ON onset. 49 of 52 patients showed abnormal response (cancelled BBE, darkness enhancement) corresponding to 94.23 %. 20/52 patients were reexamined 3 months following ON onset where 7/20 showed normal response (1/20 in the acute phase) which may indicate a dynamic response of the flicker test at different time points following ON onset.

6) Diskussion

Preliminary results indicate very good sensitivity of the digital flicker test in ON. Follow up of the ON patients, and a general MS patient population, may further provide evidence of an accurate and easy to use tool in diagnosing acute ON and signs of demyelinating disease in the visual pathway.

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