The Functional Dexterity Test (FDT) measuring hand function correlates with overall disease activity in patients with rheumatoid arthritis

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Background

Disease activity and severity in patients with rheumatoid arthritis (RA) is usually determined by composite scores of involved joints and wellbeing, largely relying on questionnaires. No objective method quantifying the functional impairment of involved joints is used in these patients in daily clinical practice. The Functional Dexterity Test (FDT), a simple standardized tool developed in 1988, estimates the functional ability of the hand quantitatively, but has never been validated for patients with RA.

Methods

Patients with active RA, as determined by CDAI and SDAI scores, and followed in Bnai Zion Medical Center, performed the FDT during their regular visit in the outpatient clinic (test time is approximately 1 to 2 minutes). RA patients in remission formed a control group. Correlations of the FDT times with CDAI and SDAI scores were calculated.

Results

Thirty-eight patients with active RA (CDAI>10, SDAI>11), all treated with biological agents, were evaluated. The correlation between FDT times and the disease activity indices was statistically significant, with p value <0.033 for CDAI and <0.028 for SDAI. Twenty-nine of 38 patients with active RA (76%) demonstrated significant or severe hand dysfunction per FDT test. The difference between activity indices was statistically different between patients with severe dysfunction and those with normal or slightly dysfunctional hand. FDT times were also statistically different between patients with active disease and those in remission.

Summary

The FDT, a simple objective tool, was found in statistically significant correlation with activity disease indices in patients with active RA. A very high percentage of patients with active RA suffer from significant hand dysfunction as defined by the FDT.