Though the Japanese version of the Montreal Cognitive Assessment (MoCA-J) scores change after a cerebrospinal fluid tap test (CSFTT), their characteristics remain unclear. To compare patient response rate to changes in cognitive function observed in the cerebrospinal fluid tap test, and to determine which group of patients were good responders.

This study included 32 patients who were suspected of having idiopathic normal pressure hydrocephalus (iNPH) between May 2017 and October 2018. Cases were divided into, following a CSFTT, a gait responder group and a non-responder group. Scores of the MoCA-J were compared and examined before, one day after, and one week after the CSFTT.

Significant changes in MoCA-J scores were observed 1 day and 1 week after the CSFTT in the gait responder group. The change in scores was larger, and had a larger effect size, one week after the CSFTT. On assessment, MoCA-J sub-items began to show changes in attention and abstract items one day after the CSFTT, and significant changes were noted in attention and abstract items in addition to executive functions and orientation one week after the CSFTT. The degree of cognitive function before the CSFTT was less closely related to the amount of change. Changes in cognitive function can be assessed at each time point after the CSFTT, and changes in cognitive function are measured regardless of the level of cognitive function.

These results suggest that evaluating patients with the MoCA-J may potentially support a more accurate iNPH diagnosis [1)].

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