

Interleukin 17F level and interferon beta response in patients with multiple sclerosis

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A study by Hans-Peter Hartung, M.D., of Heinrich-Heine-Universität, Düsseldorf, Germany, and colleagues examines the association between IL-17F and treatment response to interferon beta-1b among patients with relapsing-remitting multiple sclerosis.

Serum samples were analyzed with an [immunoassay](#) from 239 randomly selected patients treated with interferon beta-1b, 250 micrograms, for at least 2 years in the Betaferon Efficacy Yielding Outcomes of a New Dose Study. Researchers measured the levels of IL-17F at baseline and month 6, as well as the difference between the IL-17F levels at month 6 and baseline were compared between: (1) patients with less disease activity versus more disease activity; (2) patients with no disease activity versus some disease activity; and (3) responders versus nonresponders.

According to study results, levels of IL-17F measured at baseline and month 6 did not correlate with lack of response to treatment after 2 years using clinical and [magnetic resonance imaging](#) (MRI) criteria. Relapses and new lesions on MRI were not associated with pretreatment serum IL-17F levels. When patients with neutralizing antibodies were excluded, the results did not change.

"We found that [serum concentrations](#) of IL-17F alone did not predict response to interferon beta-1b therapy in patients with relapsing-remitting multiple sclerosis." The study concludes, "Given the multifaceted pathophysiology associated with [disease progression](#) and response to treatment by patients with relapsing-remitting multiple

sclerosis, using extreme patient cohorts in combination with immune-based biomarker signatures may actually be the most efficient way of initially identifying response markers."

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