

## **CASE REPORT OF AGGRESSIVE MS VERSUS POSSIBLE PRIMARY PROGRESSIVE MS RESPONDING TO NATALIZUMAB TREATMENT**

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We report a case study of a 48-year-old male with a 3 year history of MS showing a rapid progressive course from onset of his disease. Initial presentation was left leg weakness and MRI studies showed multiple plaques in brain and cervical spine with evidence of contrast enhancement. Interferon treatment provided modest functional improvement. However he continued to have functional decline. Repeat MRI showed multiple new plaques and evolving lesions in brain, cervical and thoracic spine.

Side effects and lack of apparent efficacy prompted a change from interferon to fingolimod. This was not tolerated and was stopped after 2 weeks of therapy. Following a 1 month washout, a 4 day course of oral methylprednisolone and a further 1 month washout, he began natalizumab infusion.

His EDSS went from 6.5 after steroid but before natalizumab to 3.0 after 4 infusions. JC virus status has been persistently positive. Timed 25-foot walk averaged greater than 60 seconds before and 12.3 seconds after infusion therapy. MRI after the fourth infusion showed demyelination in the brain but no disease progression and no new enhancing lesions or PML. His rapid decline without clear evidence of relapse and remission had suggested he was possibly primary progressive MS. However his dramatic response to natalizumab suggests he may have been a case of rapid clinical decline from aggressive and frequent relapses. This case demonstrates that in some cases an aggressive treatment trial may be warranted even if primary progressive MS is suspected.