Severe relapse after stopping natalizumab for multiple sclerosis

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A 19-year-old female was diagnosed with multiple sclerosis (MS) in 2008, after she had developed double vision. In the next year, she suffered four relapses, after which therapy with subcutaneous interferon beta 1a was introduced. In the next 2.5 years, she suffered seven more relapses with good

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recovery after steroid treatment. At that point, her Expanded Disability Status Scale (EDSS) was 3.5. Because of the disease progression, therapy with natalizumab 300 mg i.v. monthly was initiated. During the next 12 months, the patient was stable, without new relapses and her EDSS improved to 1.5. Her magnetic resonance imaging (MRI) 6 months after starting natalizumab (Fig. 1 a, b, c, T2 sequences) showed several infra- and supratentorial lesions without postcontrast enhancement (postcontrast T1 sequences not shown). Because the patient wanted to become pregnant, therapy with natalizumab was stopped after 12 months. Three months after discontinuation, the patient experienced severe relapse with ataxia and spastic paraparesis (muscle strength of the left leg was 3/5 and of the right leg 0/5). Brain MRI performed at that point (Fig. 1 d, e, f, T2 sequences) showed many new T2 and FLAIR lesions, predominantly in the medulla oblongata, pons and supratentorial regions, without postcontrast enhancement (postcontrast T1 sequences not shown). Treatment with methylprednisolone 1 g for 10 days led to moderate to good recovery. Treatment with natalizumab was initiated again, and after three monthly doses the patient was stable with an EDSS of 3.5.

This case highlights the problem of the disease course after natalizumab discontinuation because of pregnancy planning.

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