

A patient with subacute degeneration of the spinal cord secondary to pernicious anemia

A 65-year old man presented with a 6-month history of paresthesia and ataxia in the last two months. His past medical history included a chronic anemia syndrome treated with iron and folic acid during the last 3 months. He had discontinued folic acid because of gastric side effects.

Physical examination showed slight pallor and magnetic resonance imaging revealed significant neurologic hyperintensity in the dorsal spine on T2-weighted images. He had decreased superficial sensitivity and weakness in the limb with loss of vibration position sense and sensory ataxia with positive Romberg's sign. The Achilles tendon reflexes were absent with a positive Babinsky's reflex. Results of other examinations were normal.

Magnetic resonance imaging (MRI) of his spinal cord showed an increased T2 signal in the posterior cord which was clearly delimited without medullar atrophy (Figures 1 and 2).

Relevant laboratory results were RBC $2.8 \times 10^{12}/L$, hemoglobin 116 g/L, MCV 120 fL, and MCH 40 pg/cell. Examination of peripheral blood revealed macrocytosis with hypersegmentation of polymorphonuclear leukocytes. Serum vitamin B₁₂ level was 40 ng/L (normal range, 200 to 950). A Schilling test demonstrated malabsorption of vitamin B₁₂. A gastric biopsy showed chronic atrophic gastritis.

The patient was diagnosed as having subacute combined degeneration of the spinal cord secondary to pernicious anemia. He received monthly intramuscular injections of 100 µg vitamin B₁₂. At the 6-month follow-up the patient showed a hematologic response and clinical improvement but the abnormalities on MRI have persisted.

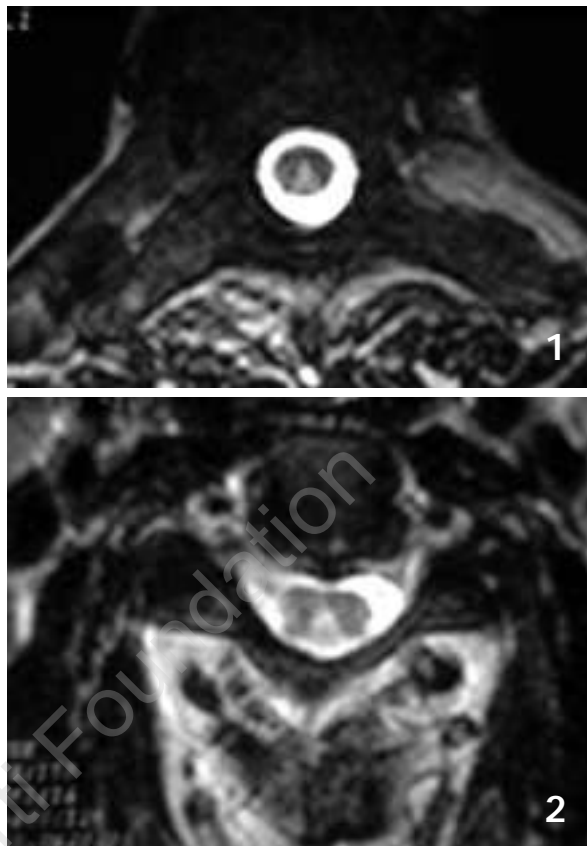
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References

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Figures 1 and 2. Axial T-2 weighted scans at cervical and thoracic levels demonstrate a triangular-shaped high signal in the posterior aspect of the cord.