A 23-year-old female presented with progressive low back pain for several weeks. She had been diagnosed with dermatomyositis at the age of 3 and received corticosteroids episodically for 5 years until her rheumatologic condition achieved complete remission. Magnetic resonance imaging of the spine showed a T2 bright lesion (panel A) at multiple levels without evidence of cord compression. Laboratory findings included normocytic anemia of 9.2 g/dL, normal platelets and white blood cell count, β-2 microglobulin of 3.3 mg/L, normal calcium and creatinine. Serum electrophoresis revealed high levels of serum IgG (7970 mg/dL) characterized as IgG κ monoclonal protein. Urine protein electrophoresis showed 7.6 mg/dL of IgG κ monoclonal protein. Bone marrow biopsy and aspirate (panel B) showed a hypercellular marrow with 43% infiltration of plasma cells. A diagnosis of IgG κ multiple myeloma was made and treatment was started with lenalidomide, bortezomib, and dexamethasone. An autologous bone marrow transplantation is planned.

This case highlights the value of clinical assessment. Multiple myeloma is infrequently seen in patients under the age of 30 and dermatomyositis is a disease known to be associated with malignancies. Few cases reported in the literature describe paraneoplastic dermatomyositis associated with pre-existent multiple myeloma. This very young patient developed multiple myeloma associated with pre-existent dermatomyositis. The precise relationship between dermatomyositis and myeloma is unknown.

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A young patient with multiple myeloma

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