A healthy 36-year-old man presented with a history of multiple subcutaneous nodules that began to appear when he was 3 years of age. The lesions first appeared in the lower limbs, then arose at other sites, including the trunk and arms (Panel A). Physical examination revealed more than 40 painless, mobile, soft nodules, with a maximum diameter of 10 cm, most of which were located in the arms and legs (Panel B). His father and grandfather and two brothers had the same condition. Histopathological examination revealed mature adipose tissue, supporting the diagnosis of familial multiple lipomatosis, a rare autosomal dominant disorder. The patient's lipid profile was normal. The differential diagnosis included Dercum's disease, a painful syndrome of the adipose tissue associated with obesity, and Madelung's disease, which is characterized by symmetric fat deposits in the head, neck, and upper trunk and is associated with chronic alcoholism. However, neither of these conditions was probable because the deposition of fat was asymptomatic and asymmetric and the patient was not obese. Surgical excision is often required to improve cosmetic appearance. In this patient, the largest lesions were removed, but some lipomas recurred in the affected sites, prompting the need for repeat surgery.