A 41-year-old man with diabetes mellitus presented with acute binocular vertical diplopia for 1 week. Examination showed a hypertropia of 6 prism diopter in primary gaze and limitation of depression of the left eye (A). Downward saccades were also slow in the left eye.Magnetic resonance imaging of the patient’s brain disclosed an infarction in the area of the left oculomotor subnucleus for the inferiorrectus, located in the rostro-dorsal portion of the oculomotor nuclear complex (B and C). (Abbreviations: DN ¼ dorsal subnucleus; INC ¼interstitial nucleus of Cajal; MLF ¼ medial longitudinal fasciculus; NPH ¼ nucleus prepositus hypoglossi; PPRF ¼ paramedian pontinereticular formation; riMLF ¼ rostral interstitial nucleus of medial longitudinal fasciculus; RN ¼ red nucleus; VN ¼ ventral subnucleus;VNC ¼ vestibular nuclei complex)