Adult-like but regressive increase of intima-media thickness and roughness in a child with type 1 diabetes.

Abstract: A 12-yr-old Kosovo-Albanian boy with insufficiently controlled type 1 diabetes since his second year of life developed severely increased intima-media thickness (IMT) and roughness (IMR) of the common carotid artery (CCA): max/mean IMT=0.81/0.68 mm and IMR=0.048 mm. Intima-media thickening, comparable with that in a 50- to 60-yr-old healthy adult, decreased within 41 months (max/mean carotid IMT=0.72/0.56 mm and IMR=0.036 mm) by intensive treatment of diabetes. Moyamoya disease (MMD), complicated by cerebral infarction, occurred coincidentally but regressed within 6 months. This case report points out that (i) chronic hyperglycemia in childhood may lead to adult-like increase of carotid IMT/IMR as early signs of subclinical atherosclerosis, (ii) increased carotid IMT/IMR may be regressive by intensive diabetes control, and (iii) a screening examination for carotid IMT/IMR should be considered in patients at high risk of atherosclerosis.