A 59-year-old woman was referred to us for heart murmur. Coronary angiography (Fig 1) showed that there was a huge saccular coronary artery aneurysm at the proximal left anterior descending artery (LAD) and abnormal vessels rising from coronary branches to pulmonary artery. The operation was performed through a median sternotomy. Cardiopulmonary bypass was established, and cardioplegic solution was infused antegrade after aortic cross clamping. The aneurysm was located at the proximal LAD. The aneurysm was opened longitudinally, and there were proximal and distal orifices of LAD at the base of the aneurysm. In addition, the intimal wall of the LAD was intact. We directly closed the LAD using several stiches using the circumferential aneurysmal wall (Fig 1). The aneurysmal wall was left open. Fistulas were ligated. Postoperative course was uneventful.

Twenty-three years after the initial operation, we evaluated the coronary artery with 256-row multidetector computed tomography, which revealed complete disappearance of the aneurysm and no luminal stenosis of the LAD (Fig 2, arrows). Various surgical strategies are adopted for repairing coronary artery aneurysm, such as aneurysm ligation plus coronary artery bypass grafting, direct end-to-end anastomosis, and saphenous vein patch repair [1, 2]. We have chosen direct anastomosis because the intimal wall of the coronary artery was patent. One of the long-term concerns regarding our procedure is the aneurysmal change of the repaired artery. However, 23 years after surgery, computed tomography showed intact LAD; therefore, the durability of our procedure was satisfactory.

References