A giant aneurysm involving multiple coronary arteries accompanied by a congenital coronary fistula communicating with the left ventricular (LV) cavity is very rare. A 48-year-old female patient was admitted to our clinic with complaints of dyspnea and palpitations. She had no history of cardiac disease. Blood pressure was 110/60 mmHg, and pulse was irregular with a rate of 110 beats/min. On cardiac auscultation, a grade 2/6 diastolic murmur and grade 3/6 systolic ejection murmur were heard over the aortic and mesocardiac areas, respectively. Electrocardiography showed atrial fibrillation. Transthoracic echocardiography showed slightly depressed LV systolic functions and grade 2 aortic and mitral insufficiency. Coronary angiography revealed a giant left main coronary aneurysm extending to the left anterior descending and circumflex coronary arteries (Fig. A, B). No significant stenosis was detected. A fistulization from the left anterior descending artery to the LV cavity was also noted (Fig. C-D). A decision for surgery was made. Ligation of the feeding coronary branch and closure of the aneurysmal fistula in the left ventricular wall were performed under cardiopulmonary bypass. The postoperative course was uneventful.

Figures. (A) Right and (B) left anterior oblique projectional views of the giant left main coronary aneurysm extending to the left anterior descending (LAD) and circumflex coronary arteries. (C-E) View of the fistula between the LAD and the left ventricular (LV) cavity in the right cranial projections. (C) Opacification of the LAD with no contrast passage into the LV. (D) Opacification of the LAD and LV. (E) The LV is intensely opacified and the contrast in the LAD has been washed out.