A 52-year-old male was admitted with dyspnea, fatigue, and palpitation. He had a two-year history of anterior myocardial infarction. Echocardiography showed dilatation of the left ventricle and akinetic anterior wall with an ejection fraction of 20%. The electrocardiogram recorded during one of the palpitation attacks showed wide QRS ventricular tachycardia that recovered following defibrillation. The patient underwent coronary angiography and electrophysiologic study at the same session. Coronary angiography revealed a high-grade, long stenosis in the proximal left anterior descending artery. There was an interesting view of three well-developed channels supplying the distal vascular tree with TIMI-3 flow (Fig. A, B). Monomorphic ventricular tachycardia was induced during electrophysiologic study and corrected with over-drive pacing. Although there was TIMI-3 distal flow provided by in-lesion and perivascular recanalization, thallium 201-SPECT study showed a fixed anterior perfusion defect. The patient underwent ICD implantation without any coronary intervention. In-lesion channels, perivascular vaso vasorums, new vascular formations (neovascularization), and ipsi- or contralateral bridging collaterals may sometimes provide a good distal blood flow and protect myocardium during acute and chronic coronary occlusions. Unfortunately, the timing of spontaneous recanalization was not good enough for our patient.

Figures. (A) Right anterior oblique and (B) anteroposterior cranial views showing intracoronary supply to the distal vascular tree.