This is a report of a 37-year-old Caucasian female who presented to the emergency room with an acute onset of chest pain associated with dyspnea and diaphoresis. She had no known past medical history. She was a non-smoker and was not on any regular medications. On physical assessment, her body-mass index was 38. The family history was significant for a brother with hypertriglyceridemia and premature coronary heart disease. On admission, electrocardiogram was unremarkable but serum troponin I was elevated at 2.4 (normal < 0.02). She was diagnosed with non-ST segment elevation myocardial infarction and was initiated on acute coronary syndrome protocol. She underwent cardiac catheterization which revealed normal coronary arteries. A blood sample which was drawn for routine analysis on admission had shown milky white serum after centrifugation suggestive of lipemia (Figure 1). The lipid profile showed total cholesterol of 254 mg/dl, high density lipoprotein less than 20 mg/dl, but remarkably elevated triglycerides at 25,000 mg/dl. Her blood chemistry and complete blood count were unremarkable. To treat the severe hypertriglyceridemia, she underwent plasmapheresis with 5% albumin replacement for three consecutive days. This treatment significantly improved her triglyceride level and reduced it to 560 mg/dl. She was diagnosed with familial hypertriglyceridemia, and was discharged home on atorvastatin 40mg once a day and gemfibrozil 600 mg twice a day.

High triglyceride (TG) level as an independent risk factor for cardiovascular disease should be studied further and hypertriglyceridemia should be treated.