A 17-year-old boy was sent to the emergency service for an accidental nail-gun shot injury of the chest. His blood pressure was 90/60 mm Hg, heart rate was 110 bpm, and oxygen saturation was 87% before anesthetic induction in the operating room. Transesophageal echocardiography undertaken after induction with general anesthesia and endotracheal intubation showed that the left ventricle and descending aorta were penetrated by the nail. There was large amount of pericardial effusion with cardiac tamponade. Periaortic hematoma was evident by transesophageal echocardiography. Under partial cardiopulmonary bypass, the nail was removed, and the wounds of the left ventricular wall and descending aorta were repaired. The patient was discharged uneventfully 7 days after the accident.
Figure 3. Transesophageal echocardiography of ventricles, short-axis view. Large amount of pericardial effusion is demonstrated. LV indicates left ventricle; RV, right ventricle.

Figure 4. Transesophageal echocardiography of ventricles, short-axis view. Right ventricle is compressed by pericardial effusion (large arrow), and a lacerated wound at apex of left ventricle and part of interventricular septum is shown (small arrow). LV indicates left ventricle; RV, right ventricle.
Nail Gun Penetrating Injury of the Left Ventricle and Descending Aorta
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