

Percutaneous Retrieval of an Air Bullet From the Left Ventricle

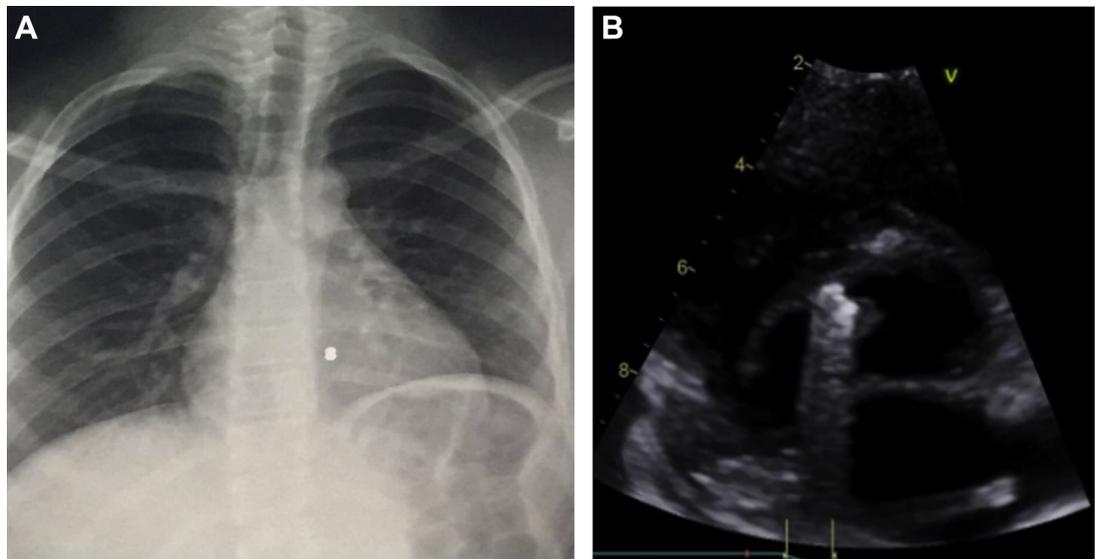


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A 14-year-old boy presented to our center 24 h after having an accidental air bullet injury. He presented to the emergency department in a peripheral hospital with severe left-sided chest pain but was hemodynamically stable. The inlet wound was about 4 mm in diameter and located in the left upper posterior axillary line with no obvious external bleeding and no exit wound. Chest radiograph demonstrated a radiopaque bullet inside the cardiac silhouette

(Figure 1A). The bullet was clearly seen by echocardiography inside the left ventricular outflow tract attached to the septum below the aortic valve (Figure 1B). The patient was initially referred for urgent cardiac surgery, but being hemodynamically stable and without pericardial effusion or obvious bleeding; we sought percutaneous approach with standby cardiac surgery. Conservative management was not adopted, as we thought that bullet embolization was a real risk in this case. The patient

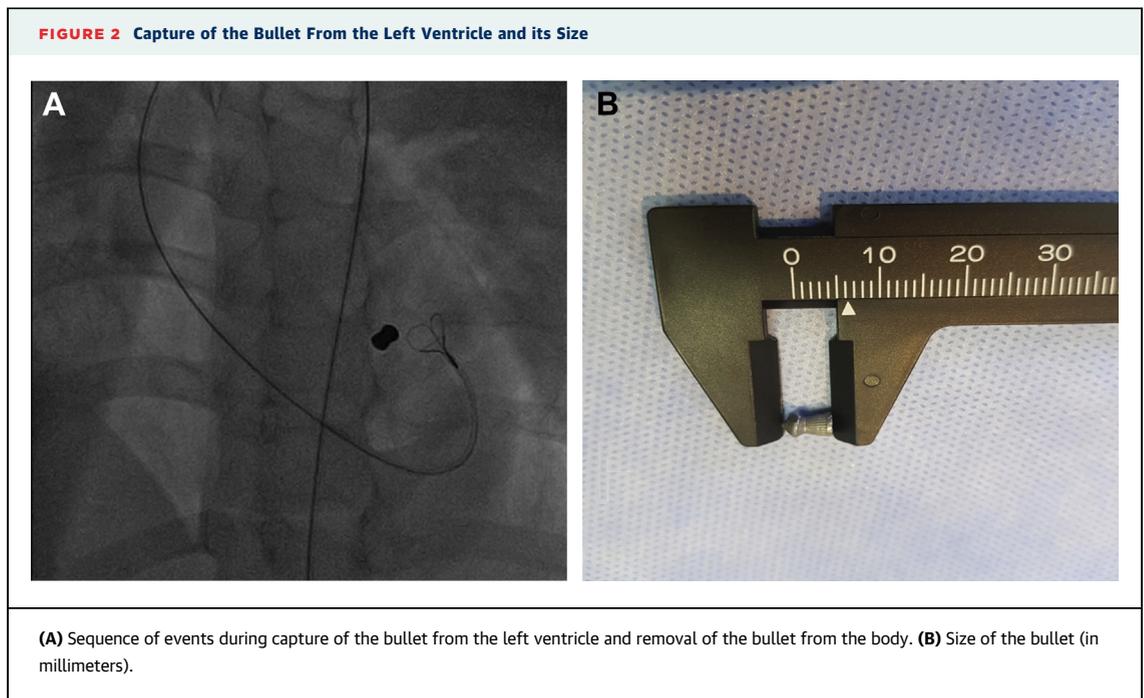
FIGURE 1 Location of the Bullet by Chest X-Ray and Echocardiography



(A) Chest x-ray posteroanterior view showing the radio-opaque bullet inside the cardiac silhouette. **(B)** Short-axis parasternal view showing the bullet in the left ventricular outflow tract attached to the interventricular septum.

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was directly taken to the catheterization laboratory and right femoral arterial access was secured. A low-profile 14-F expandable sheath (eSheath, Edwards Lifesciences, Irvine, California) was inserted initially to allow safe removal of the bullet without vascular injury. The bullet was visualized on biplane projections and was seen in the left ventricular outflow tract attached to the interventricular septum below the aortic valve. A 6-F multi-loop snare catheter (ONE Snare, Merit Medical Systems, Gateway, Ireland) was introduced through a diagnostic 6-F right Judkin catheter (JR4, Cordis Corporation, Miami Lakes, Florida). After a few trials the bullet was grasped in the snare catheter and pulled inside the 14-F introduction sheath (Figure 2A). The vascular access was secured using

Proglides (Abbott Laboratories, Redwood City, California).

The patient was stable through the whole procedure, which was guided by transthoracic echocardiography. The size of the bullet was 6×4 mm (Figure 2B). The patient had an uneventful course of admission and was discharged home in stable condition after 4 days of admission.

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