Internal thoracic vein injury presenting as extrapericardial tamponade after blunt chest trauma

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Mediastinal hematoma has been reported in association with cardiac tamponade in several clinical settings. A 32-year-old man came to our trauma unit after being crushed under a persimmon tree that fell from about 5 m in height. Initial hemodynamic status was unstable, with blood pressure 70/40 mm Hg, pulse rate 130 beats/min, and central venous pressure 22 cm H₂O. A chest radiograph (Figure 1) showed disappearance of sharp cardiac silhouette with left rib fracture. Computed tomography showed a large anterior mediastinal hematoma with left internal thoracic vessel extravasation (Figure 2, A) and sternal body fracture (Figure 2, B). The patient underwent emergency sternotomy with evacuation of a retrosternal hematoma. Actively bleeding vessels were both internal thoracic veins (intact internal thoracic artery). The patient was stable in the postoperative period and was discharged after 2 weeks.

FIGURE 1. A chest radiograph showed no remarkable findings other than a left rib fracture.

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FIGURE 2. Computed tomography showed a large anterior mediastinal hematoma with left internal thoracic vessel extravasation (A, arrow) and severe compressed heart and sternal body fracture (B, arrow).