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## **Penetrating Injuries of Heart and Great Vessels in Patients Wounded during the 1992-1994 War in Bosnia and Herzegovina**

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**Aim.** To present characteristics of heart and great vessel injuries in patients wounded during the 1992-1994 war in Bosnia and Herzegovina and their management in conditions of lack of complex diagnostic and therapeutic procedures.

**Methods.** Retrospective analysis was performed on the medical records of 31 patients treated for cardiac and great vessel injuries at the Department of Surgery, Tuzla University Hospital, between January 1992 and December 1994.

**Results.** The most frequent localization of the injuries was the right and left ventricles (each 10 cases), left atrium in 5, superior caval vein in 5, and inferior caval vein in 5 cases. Isolated pericardial injury was found in 5 cases. Immediately after injury, 22 injured suffered from shock, 7 from pericardial tamponade, and 2 were in a stable state. The mortality rate was 58%. Eight patients died during the operation as a consequence of bleeding. The highest mortality rate was recorded in the injuries of the left ventricle followed by the injuries of the right ventricle and of superior caval vein. All 4 patients with multiple heart and great vessel injuries died. Mortality rate was significantly higher in patients who suffered from shock than in those who suffered from tamponade.

**Conclusion.** Penetrating war injuries of heart and great vessels are among the most serious injuries in war. These injuries require prompt treatment to save life, but this is hardly manageable in hospitals without cardiopulmonary bypass facilities.

**Key words:** blood vessels; Bosnia and Herzegovina; cardiac rupture, traumatic; cardiac tamponade; pericardium; shock, hemorrhagic; thoracic surgery; thoracotomy; war