## Thromboembolic findings in patients with heart failure at autopsy

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**Background.** The risk of thromboembolic events is increased in patients with heart failure (HF); however, few studies have reported thromboembolic findings in HF patients who have undergone autopsy.

**Methods and Results.** We reviewed 1457 autopsies (January 2000/July 2006) and selected 595 patients with HF. We studied the occurrence of thromboembolic events in patients' autopsy reports. Mean age was 61.8±15.9 years; 376 (63.2%) were men and 219 (36.8%) women; left ventricular ejection fraction was 42.1±18.7%. HF etiologies were coronary artery disease in 235 (39.5%) patients, valvular disease in 121 (20.3%), and Chagas' disease in 81 (13.6%). The main cause of death was progressive HF in 253 (42.5%) patients, infections in 112 (18.8%), myocardial infarction in 86 (14.5%), and pulmonary embolism in 81 (13.6%). Altogether, 233 patients (39.2%) suffered 374 thromboembolic events. A thromboembolic event was considered the direct cause of death in 93 (24.9%) patients and related to death in 158 (42.2%). The most frequent thromboembolism was pulmonary embolism in 135 (36.1%) patients; in 81 events (60%), it was considered the cause of death. When we compared clinical characteristics of patients, sex (OR=1.511, CI 95% 1.066-2.143, *P*=0.021) and Chagas disease (OR=2.362, CI 95% 1.424-3.918, *P*=0.001) were independently associated with the occurrence of thromboembolisms.

**Conclusions.** Thromboembolic events are frequent in patients with heart failure revealed at autopsy, and are frequently associated with the death process. Our findings warrant a high degree of suspicion for these occurrences, especially during the care of more susceptible populations, such as women and Chagas patients.

**Keywords**: Heart failure; Thromboembolism; Autopsy; Cardiomyopath.