Introduction: Patients suffering from ventricular tachycardia (VT) or fibrillation (VF) have poor prognosis despite of intensive treatments and cares. However, their details have been rarely investigated on a large scale.

Methods: Patients with VT or VF, except apparently acute ischemic cause, were recruited from Tokyo CCU Network Registry database in 2012-2016. Their characteristics and short-term prognosis were retrospectively evaluated.

Result: Out of 6304 patients who were hospitalized due to cardiac arrhythmias without acute ischemic cause, a total of 1985 patients (average 65±17 y/o, males 76%) with VT or VF were recognized. They included 596 patients (30.0%) with ischemic heart disease such as old myocardial infarction or ischemic cardiomyopathy, 174 patients (8.8%) with dilated cardiomyopathy (CM), 150 patients (7.6%) with hypertrophic CM, 77 patients (3.9%) with valvular heart disease, 48 patients (2.4%) with cardiac sarcoidosis, 39 patients (2.0%) with arrhythmogenic right ventricular CM and 27 patients (1.4%) with vasospastic angina. Nineteen patients (0.8%) with Brugada syndrome and 16 patients with QT prolongation syndrome (0.8%) were also observed. Total short-term (in-hospital) mortality was 11.1%, and patients with valvular heart disease and ischemic heart disease had poor prognosis (16.9% and 14.2%, respectively).

Conclusion: Patients with VT/VF had a high mortality, especially with valvular heart disease and ischemic heart disease. Further studies and establishment of the treatment strategies for such patients are needed.