Heat stroke is severe illness which needs prompt assessment and treatment. Recent global warming may increase the victims of heat stroke in the future. Heat stroke occurs not only in elderly and small children during annual heat wave but also in healthy adults after strenuous physical activity. Heating and several mechanisms including cytokines, endotoxin, and endothelial-cell damage or coagulation disorders are related to the progression to multiple organ failure. Circulatory failure in heat stroke may be caused either by volume depletion, vasodilation due to endothelial vaso-active factors or by myocardial dysfunction. Understanding pathogenesis and the patho-physiology in heat stroke is required for the emergency physician and general practitioner. We present a case that was transferred to our emergency room for disturbance of consciousness and generalized convulsion. His body temperature was 41.2°C and his electrocardiogram presented regular wide QRS tachycardia. He was at first diagnosed and treated as heat stroke and ventricular tachycardia. Disease process and detailed examination revealed he had stress-induced cardiomyopathy and atrial fibrillation with rapid ventricular response. We discuss about cardiovascular response and abnormality caused by heat stress, focusing on the myocardial involvement and management in heat stroke.

Biography
Chiaki Watanabe graduated from Kyushu University School of Medicine. She completed her PhD in Kyushu University and Post-doctoral studies at Case Western Reserve University in USA. She is the Director of Department of Cardiology, Takeda General Hospital.

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