

# 19<sup>TH</sup> ANNUAL CARDIOLOGY CONFERENCE

August 31-September 01, 2017 Philadelphia, USA

## Comparison of bio-signal characteristics between ventricular fibrillation observed in clinical experiments and ventricular fibrillation in animal models

**Shin Ho Lee**

NHIS Ilsan Hospital, South Korea

Ventricular fibrillation is one of the most common causes of sudden cardiac arrest in adults. A lot of research has been done on ventricular fibrillation. However, that research draws conclusions from animal studies and they could not induce artificial ventricular fibrillation in human subjects. This study looks at whether there is a difference between ventricular fibrillations in animal models and in human models, with comparisons of ventricular fibrillation obtained from the two groups. This study compares and analyzes electrocardiography (ECG) wave forms as electrical bio-signals of the two groups, in which the histogram of gradient (HOG) and auto-associative multilayer perceptrons (AAMLN) are applied for feature extraction and pattern analysis, respectively, of the bio-signals. The characteristics of electrical signals in animal ventricular fibrillation and those in human ventricular fibrillation are conclusively similar and it is reasonable to adapt the results obtained from animal research to clinical practices.

### Biography

Shin Ho Lee is working at National Health Insurance System Ilsan Hospital in South Korea as a Researcher and an Emergency Physician and also working at Yonsei University Medical College in South Korea as a Clinical Associate Professor. He teaches Medicine to medical students based on his experience as a Physician, and carries out patient care and research with his colleagues. His field of interest is cardiopulmonary resuscitation and traumatology, and he has recently been devoted to the study of cardiac arrest due to ventricular fibrillation and medical simulation training.

shinhoingh@gmail.com

### Notes: