

# 18<sup>th</sup> Annual Cardiologists Conference

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## *Guy Hugues Fontaine*<sup>1, 2</sup>

<sup>1</sup>Universite Pierre et Marie Curie, France

<sup>2</sup>La Salpêtrière Hospital, France

### **Torsades de Pointes (TdP)**

**T**orsades de Pointes (TdP) is a rare but important cause of sudden death of young people with the genetically determined long or short QT syndrome. The length of the QT interval is directly related to the risk stratification of these patients modulated by genetic factors. TdP is also a major concern of the pharmaceutical industry for the development of any cardiac and even non-cardiac drugs. Endocardial recordings during TdP in human have brought new concepts for the understanding of this arrhythmia mechanism. Here, presence of intramyocardial conduction defects is demonstrated by the analysis of endocardial potentials observed on the QRS complexes in complete AV block. We present for the first time that patients (old females) with spontaneous complete AV block have a trouble in conduction not only on the AV conduction system but also inside the myocardium. This concept is reinforced by the absence of EGM but only far field potentials observed several times presented in a unique case. These images document the concept of depressed myocardium in which not only AV conduction but also intramyocardial conduction is impaired. It may explain that most TdP are transient and return spontaneously to sinus rhythm. Other data have demonstrated the presence of Wenckebach type I and Mobitz type2 in the myocardium of those patients suggesting that the myocardium has preferential pathways working as conduits transmitting ventricular activation. This is also in agreement with the identification of a specific genetic background.

### **Biography**

Guy Hugues Fontaine has made 16 original contributions in the design and the use of the first cardiac pacemakers in the early 60s. He has serendipitously identified arrhythmogenic right ventricular dysplasia (ARVD) during his contributions to antiarrhythmic surgery in the early 70s. He has developed the technique of fulguration to replace surgery in the early 80s. He has been one of the 216 individuals who have made a significant contribution to the study of cardiovascular disease since the 14<sup>th</sup> century and one of the 500 greatest geniuses of the 21<sup>st</sup> century. He has 900+ publications including 201 book chapters. He is a Reviewer of 21 scientific journals both in basic and clinical science. He has developed new techniques of hypothermia for neurologic brain protection in out-of-hospital cardiac arrest (OHCA), stroke and spinal cord injury. He has recently invented a high-tech device which can be considered as the ultimate in palliative care.

[guy.fontaine2@numericable.fr](mailto:guy.fontaine2@numericable.fr)

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