

## Editorial

### Cardioembolic Infarction: A Renewed Topic of Interest

Cardioembolic infarction accounts for one quarter of all cerebral infarcts and is the most severe subtype of ischemic stroke. The rate of in-hospital death may be as high as 27% and a few patients are symptom-free at discharge from the hospital. Major cardiac sources of embolism are well-established and cardioembolic stroke is largely preventable. However, once stroke due to cardiac embolism has occurred, the likelihood of recurrence is relatively high (up to 10% for early embolic recurrence). Therefore, efforts at primary prevention for major-risk cardioembolic sources and secondary prevention of recurrence are very important. Although large series of patients with cardioembolic infarction have been reported in the literature, some clinical aspects of the natural course of the disease are still poorly defined.

The objective of this supplement is to present an update review of relevant aspects related to clinical manifestations, biological characteristics, prognostic implications and treatment of cardioembolic stroke, in order to contribute to improve the quality of care and outcome of acute stroke patients. The most relevant aspects of cardioembolic infarction are discussed in the following 11 chapters: 1) epidemiology and risk factors of cerebral ischemia and ischemic heart diseases: similarities and differences; 2) clinical and prognostic features of cardioembolic stroke; 3) patent oval foramen in cerebral infarction; 4) cardiac workup of ischemic stroke; 5) complex atheromatosis of the aortic arch in cerebral infarction; 6) blood biomarkers in cardioembolic stroke; 7) heart failure in acute ischemic stroke; 8) cerebrovascular disease as a complication of cardiac transplantation; 9) antithrombotic therapy in cardiac embolism; 10) thrombolytic therapy in acute stroke; and 11) angiogenesis, neurogenesis and neuroplasticity in ischemic stroke.

Cerebral cardioembolism is an important topic in the frontier between cardiology and vascular neurology, occurs frequently in daily practice, and has a high impact for patients, health care systems and society. It is for all these reasons that an update on cardioembolic infarction is now fully justified. It is worth mentioning that a team of excellent professionals belonging to the Expert Committee on Cerebrovascular Diseases of the Catalan Society of Neurology and with proven experience in the field have contributed to the different chapters. My gratitude to all contributors for their support of this project and particularly to Dr. Jianyi Zhang, Editor-in-Chief of the Current Cardiology Reviews series. We hope that clinicians involved in the care of patients with cardioembolic infarction and interested in this topic will profit this publication and find this resource valuable and useful.

**Adrià Arboix, MD**

Cerebrovascular Division  
Department of Neurology  
Hospital Universitari del Sagrat Cor  
Universitat de Barcelona  
Viladomat 288  
E-08029 Barcelona  
Spain