

## Book review on: *Microcirculation – From bench to bedside*, Springer International Publishing, Maria Dorobantu, Lina Badimon, Editors

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Received: February 25, 2021, Accepted: March 12, 2021

Although it has been several centuries since the description of the functions of the arterial and venous circulatory systems, microcirculation problems have become an important topic in pathology and cardiology, in particular in the last 2–3 decades.

The recently published volume “Microcirculation – From bench to bedside” gathers in a remarkable work the essential data on microcirculation from theoretical aspects to clinical conditions in which microcirculation impairment, vasomotor dysfunction, and endothelial dysfunction occupy a significant place in pathology and therapeutic considerations.

The book is dense, especially in its first part where the theoretical aspects are approached, starting with the first chapter, the basic concepts of microcirculation, where the vascular tone that influences the microcirculation and the metabolic and bio clinical factors that contribute to its regulation are presented in particular. The basic problems that influence microcirculation do not lack experimental models and the study of microscopic techniques that are fundamental in the study of microcirculation. A special place is occupied by platelet function and coronary microcirculation dysfunction, an important chapter for clinical cardiology. The well-known role of platelets in thrombosis in large and small vessels is emphasized, but also in promoting the inflammatory and repair process at the tissue level.

The second part of the volume addresses the clinical issue of microcirculation, which is of par-

ticular interest to cardiology. Clinical cases and their solutions, which start from the extensive exposition of the theoretical problems of diagnosis and treatment, are found in the structure of the 7 chapters. As expected, the place and role of microcirculation in coronary pathology are found in 4 basic chapters of the volume that documented the myocardial infarction with non-obstructive coronary arteries (MINOCA) syndrome – vasospastic angina, chronic angina, and the no-reflow phenomenon. The latter, mainly present in the interventional approach of myocardial infarction (type B), is extensively analyzed both in terms of mechanisms involved in microvascular obstruction and myocardial dysfunction but also of invasive and non-invasive diagnostic methods.

The second part of the volume ends with 3 essential chapters discussing coronary microcirculation in relation to the etiological spectrum of left ventricular hypertrophy, endothelial dysfunction in acute heart failure and, seemingly unique, the chapter on coronary microcirculation in arrhythmias.

The final part of the volume presents balanced therapeutic considerations in microvascular dysfunction in cardiovascular pathology.

The volume “Microcirculation – From bench to bedside” is an essential work, excellently documented, useful for cardiologists interested in research, but also clinical or interventional cardiologists. The editors of the volume published with Springer, Prof. Dr. Maria Dorobantu and Prof. Dr. Lina Badimon, designed the book collaborating with well-known cardiologists of the first and second generation. The contributions of editors and authors are to be congratulated for developing a work of high scientific value for all those interested in a new face of cardiovascular pathology.

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