

## BOOK REVIEW

# Cardiorenal Syndromes in Critical Care

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In the series of Contributions to Nephrology edited by C. Ronco a recent volume has appeared with the title “*Cardiorenal Syndromes in Critical Care*”. This volume covers a wide range of topics on acute kidney injury (AKI) and some far related themes like extracorporeal CO<sub>2</sub> removal. Given this wide range, it comes as no surprise that most chapters cover their subject in just a few pages and sometimes just touch on more profound implications of recent research. The first few chapters deal with the pathophysiology of kidney injury in more detail and the authors of these chapters must admit that at present the knowledge about AKI is still far from complete. Tubular necrosis is rarely found in affected kidneys and apoptosis of tubulus cells is also a condition that does not occur on a large scale. Given the data from recent animal sepsis models, the renal hypoperfusion hypothesis has to be doubted as well.

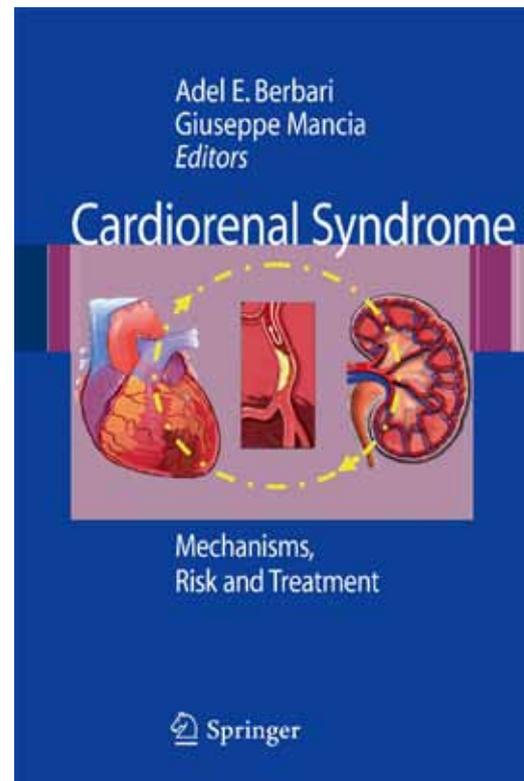
There is truth in the saying “don’t judge a book by its cover (and title)” as the subject of cardiorenal syndromes is only a small part of the book and constitutes less than a quarter of the total number of pages. The chapters dedicated to its title subject are in fact not the best part of the volume. The cardiorenal syndrome (CRS) was defined and popularized by the editor of the book himself but has not gathered many followers. By definition it is a disorder of the heart and kidneys whereby acute or chronic dysfunction in one organ may induce acute or chronic dysfunction in the other organ. No less than five types of CRS are recognized by linking heart failure to kidney failure, vice versa and taking into account whether the organ dysfunction is acute or chronic. In CRS terminology, the rapid loss of renal function through glomerulonephritis leading to heart failure in an 80-year old patient is an acute renocardiac syndrome (CRS type 3). A 56-year old patient suffering from impaired cardiac and renal function because of hypertension and diabetes mellitus will be diagnosed with CRS type 5 (secondary cardiorenal syndrome), instead of having hypertensive and diabetic nephropathy and cardiomyopathy. This new classification system is celebrated as “an important advance” and “a valuable tool in the renewed collaboration between nephrology and cardiology for a multidisciplinary approach” (page 63).

The true value of such a classification system may lie in categorizing different patient groups for research purposes but this still needs to be proven. In daily ICU practice these classification schemes are probably not helpful and tend to obscure sound clinical reasoning in individual patient cases.

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Particularly interesting in this volume are the critically written chapters on the subject of fluid assessment and management in the critically ill and the practice of renal replacement therapy in the ICU. Given the large number of publications in the fast moving field of biomarkers, it would have been helpful to address this interesting issue in a separate chapter. The current status on biomarker research is now somewhat fragmentarily discussed in different parts of the book. However, the large and growing volume of reviews on biomarkers in AKI will supply every interested reader with enough knowledge.

This book is well suited for reading by any medical specialist interested in AKI in critically ill patients and is particularly useful for a quick update on current knowledge in this field. The ICU doctor looking for in-depth analysis and discussion of AKI or even CRS may, however, be disappointed.