

# Classic Risk Factors for Cardiovascular Disease in Chronic Kidney Disease

The heart-kidney relationship was known in antiquity, and in the *Corpus Hippocraticum* patients with shortness of breath, edema, anasarca, and cardiac cachexia are described.<sup>1</sup> Edema was thought to be caused by a shift of phlegm—a cold humor—from the brain into the chest. The theory came to an end when Andrea Cesalpino of Arezzo gave an exact demonstration of the general scheme of the circulation<sup>2,3</sup> before Harvey gave the final systematization. It also is known that in heart failure the blood urea concentration increases, and glomerular filtration decreases in association with an increase in filtration fraction. Since 1946, we have known that an increase in plasma renin occurs and a relationship of renin to blood urea has been established.<sup>4-6</sup>

Patients with chronic kidney disease currently are considered in the highest risk group for cardiovascular events. In fact, the American Heart Association has stated clearly that treatment recommendations for cardiovascular disease should take into proper account the highest-risk status of patients with chronic kidney disease. The appreciation of this association now demands a close interaction between nephrologists and cardiologists.

Packer<sup>7</sup> cast many doubts on the feasibility of this interaction,

*As medicine is practiced in the 1990s the patients with heart disease and renal disease (whether these disorders are seen in the same patients or in different patients) are frequently managed by physicians who are interested in only one of the two organ systems. Under the rare circumstances, when the patient is visited by both types of specialists, the physicians frequently take opposite points of view and make therapeutic recommendations that are principally designed to preserve the function of a single organ system (that is the focus of the physician's specialty).*

Because we cannot miss the advantages of professional skills furthered by the 2 specialties we have to achieve and potentiate the link when treating patients, hoping that such a co-

operative approach will result in the generation of new ideas and promote innovations in the treatment of cardiovascular disease in chronic kidney disease. The result eventually will make lives better and longer for patients with chronic kidney disease.

To this end, a Conference on *Cardiovascular Disease and the Kidney* was organized to analyze the interface between heart disease in chronic kidney disease and conversely chronic kidney disease in heart disease, aiming to generate a rationale for prevention and cure. A renowned group of international experts was recruited to interact in the course of a conference on the Isle of Ischia, Italy. The beautiful setting was conducive to exchanges and informal discussions for the generation of new approaches. Excerpts are published herewith on the role, pathophysiology, cure, and prevention of classic and putative killers in chronic kidney diseases and are made available to a wider audience through *Seminars in Nephrology*, thanks to the strong support of Dr. Neil Kurtzman.

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## References

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