

## Acute Kidney Injury in the Tropics: Introduction

Aristotle, in ancient Greece, was the first man to divide the earth into weather zones. He hypothesized that there were 3 zones, based on their distance to the equator. The area around the equator (from 23.5°N to 23.5°S) was nominated as the torrid zone and was considered too hot for human living. He could not have been more wrong. What we now know as the tropics, the area between the Circles of Cancer and Capricorn, includes most of Africa and Latin America, southern India and Asia, Indonesia, New Guinea, and northern Australia. This is not only a currently heavily populated zone, but it also is estimated that by 2050, Latin America, Africa, and Asia will have more than 80% of the world population.

The tropics are an area of striking contrasts. Developed and developing countries exist side by side. In one same country developed areas coexist with poor and rural areas. Tertiary hospitals in modern and heavily populated cities will have acute kidney injury (AKI) epidemiology similar to that seen in the United States and Europe. On the other hand, in some areas and in the countryside one will find particular causes of AKI, frequently affecting young and previously healthy individuals and carrying significant morbidity and mortality. Even in the same tertiary university hospital the usual and prevalent nosocomial sepsis will share the intensive care unit with infectious diseases such as malaria, yellow-fever, hemorrhagic dengue, or leptospirosis. Septic abortion has virtually disappeared as a cause of acute renal injury in the developing world but it remains an important medical problem in a number of tropical countries. In some regions in

Asia venomous snakebite can be one of the leading causes of community-acquired AKI. Human interference with the ecologic balance has originated or precipitated particular causes of renal injury, such as Africanized bee venom or *Lonomia* genus caterpillar venom-induced AKI. Natural medicines prescribed by traditional healers are a significant cause of AKI in Africa and Asia.

This rich and complex context has led to the development of this issue of *Seminars in Nephrology*. Top researchers and specialists have assembled a broad and complete panorama of AKI epidemiology in tropical Latin America, Africa, and Asia. The information contained in the first articles in this issue will allow an interesting comparison of the similarities and peculiarities of AKI in the 3 largest tropical environments. In the following articles, specific causes of AKI are thoroughly discussed, such as Latin American and Asiatic venomous snakebite, poisonous arthropod accidents, and herbal and natural medicine-induced renal injuries. Finally, the most relevant infectious diseases causing AKI (ie, malaria, leptospirosis, and hemorrhagic fever) are comprehensively reviewed.

We hope that this unique collection of articles on tropical nephrology will shed some light on pathologic entities that currently are traversing the borders of tropical countries, improve the medical understanding of these diseases, and allow their early diagnosis and adequate treatment. Moreover, we look forward to motivating the nephrology community to perform research on this fascinating theme.

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