Acute Renal Failure: Changing Causes?

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In spite of variable definitions, the rate of acute renal failure seems to have increased due to variable contributions by different clinical settings [1]. Community-acquired renal failure appears to be rare. It is mostly due to one single cause of renal failure of either pre- or postrenal origin. The prognosis is most often favorable [2]. Hospital-acquired acute renal failure in a medical-surgical setting occurs in 2-5% of patients. More than one single insult is responsible for impaired renal function. Factors involved include, in descending frequency, septic shock, volume depletion, congestive heart failure, aminoglycoside treatment, and radio contrast exposure. Renal insufficiency is a poor prognostic indicator for survival [3]. The largest contribution to the incidence of acute renal failure occurs in intensive care units. Multiple renal insults, as well as multiorgan failure, are responsible for survival figures of 10-30%. Acute renal failure after major cardiovascular surgery contributes significantly to the frequency and severity of the problem [4].

Changing predisposing factors for acute renal failure include sepsis in AIDS patients and nephrotoxins applied by oncologists [5, 6]. Of central importance is the increasing age of the general population with a concomitant increase in comorbidity. A higher frequency of acute renal failure and slower recovery in this patient group is the rule [7]. The causes of acute renal failure have changed markedly during the last 20-30 years; an older patient population with comorbidity and side effects due to modern medical therapy and (cardiovascular) surgery are all involved in this development.

References