EVALUATION OF URINARY INDICES FOR THE DIAGNOSIS OF PRERENAL AZOTEMIA

Thesis
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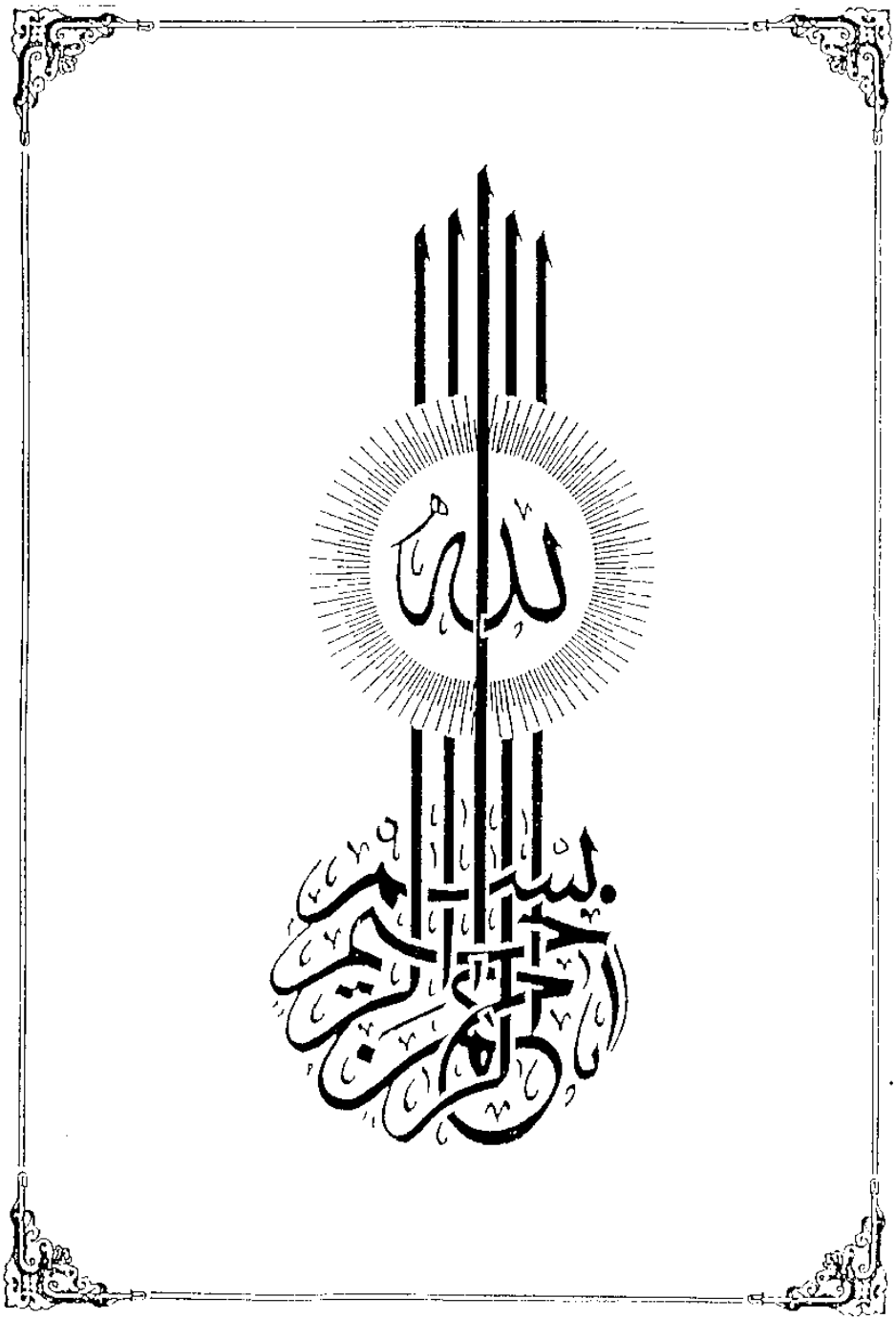

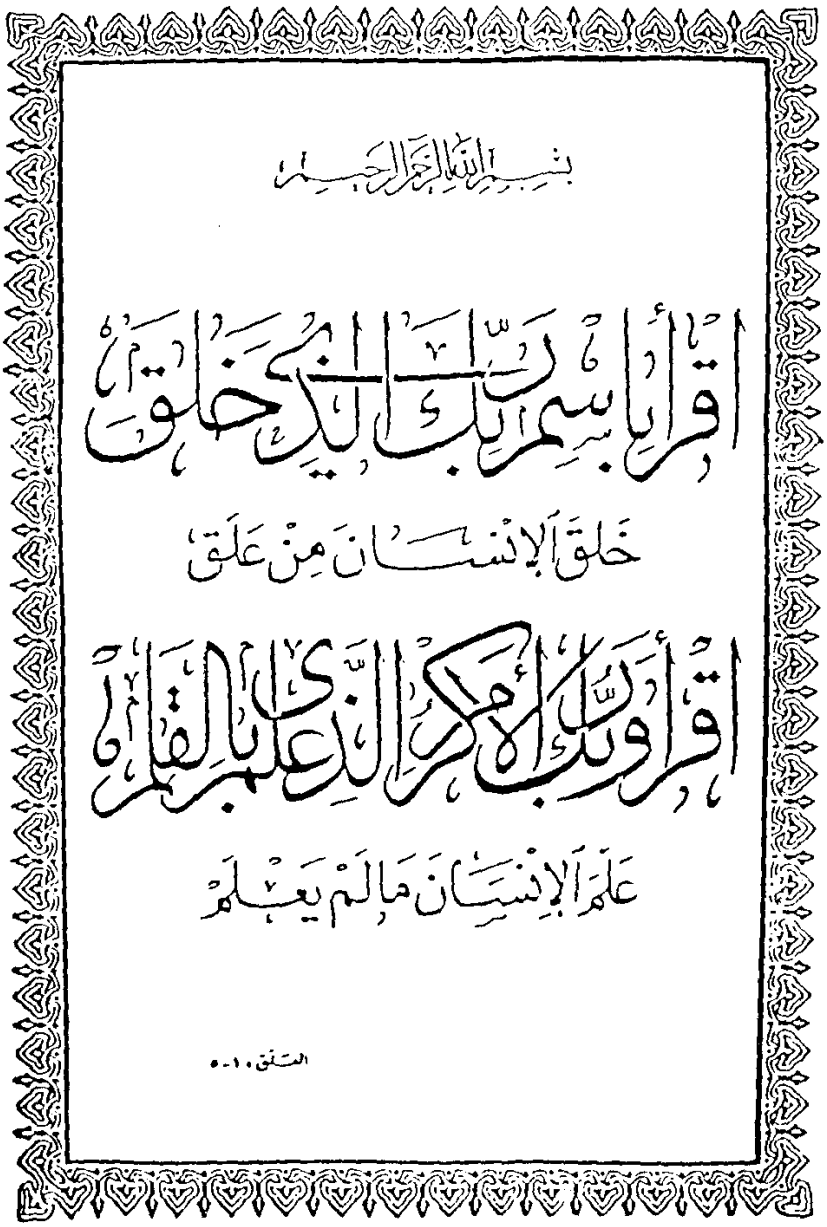
بسم الله الرحمن الرحيم

اقرأ باسم ربك الذي خلق

خلق الإنسان من علق

اقرأ وربك الأكرم الذي علم بالقلم

علم الإنسان ما لم يعلم

العلق ١-٥

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ABBREVIATION LIST

* ACE = Angiotensin converting enzyme
* ADH = Antidiuretic hormone
* ADP = Adenine diphosphate
* AGN = Acute glomerulonephritis
* AI = Angiotensin I
* AII = Angiotensin II
* AIII = Angiotensin III
* AIRF = Acute intrinsic renal failure
* ARF = Acute renal failure
* ATN = acute tubular necrosis
* ATP = Adenine triphosphate
* AVP = Arginine vasopressin
* Cl = Chloride
* COP = Colloid osmotic pressure
* ECF = Extracellular fluid
* Fe Na = Fractional excretion of sodium
* Fe U.A = Fractional excretion of uric acid
* Fe ur = Fractional excretion of urea
* FES = Flame emission spectrophotometry
* GDH = Glutamate dehydrogenase
* GFR = Glomerular filtration rate
* H = Hydrogen
* HCMA = Hyperchloremic metabolic acidosis
* HCO3 = Bicarbonate
* HPLC = High performance liquid chromatography
* ISE = Ion-selective electrode
* K = Potassium
* Na = Sodium
* NaCl = Sodium chloride
* NPN = Nonprotein nitrogen
* PTA = Phsophotungstic acid
* RBF = Renal bood flow

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ABSTRACT

Many indices have been proposed to differentiate between prerenal azotemia and other causes of acute renal failure. In this work, we studied fractional excretion of uric acid, fractional excretion of urea and fractional excretion of sodium. The patient group included 10 patients suffering from prerenal failure and 14 patients suffering from acute renal failure. The control group included 15 healthy individuals. In the present study, it was found that fractional excretion of sodium in conjunction with the patient's clinical course can distinguish between acute renal failure and prerenal failure ($P<0.0001$) followed by fractional excretion of uric acid ($P<0.001$). Fractional excretion of urea in the study was also statistically significantly different between the three group ($P<0.01$).

Conclusion: We have concluded that the fractional excretion of sodium is the best index to differentiate between prerenal failure and acute renal failure.

Key words :
Acute Renal Failure, Prerenal azotemia, Fractional excretion