

POSSIBLE DESCRIPTIONS OF PATIENTS WITH METABOLIC ACIDOSIS DUE TO RENAL FAILURE ACCORDING TO ANCIENT GREEK AND BYZANTINE WRITINGS

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INTRODUCTION AND AIM: Metabolic acidosis is a serious complication of renal failure. Symptoms may include chest pain, palpitations, altered mental status, severe anxiety due to hypoxia, nausea, abdominal pain, altered appetite and weight gain, muscle weakness. It was not until the 1950s, when practical blood pH measurement was introduced by Astrup and Siggaard Anderson, that metabolic acidosis could be identified. The aim of this study was to trace possible descriptions of patients with metabolic acidosis due to renal disease in ancient Greek and Byzantine writings.

METHODS: We reviewed articles related to the History of Nephrology and traced the sections in which physicians referred to serious renal diseases.

RESULTS: Hippocrates (460-370 BC) in his Aphorisms [4.72] observed: 'When the urine is transparent and white, it is bad; it appears principally in cases of phrenitis' probably describing an advanced renal failure patient with neurological symptoms due to acidosis and uremic encephalopathy.

Areteaus Cappadoces (1st century AD) in 'On the causes and symptoms of acute disease' [Book1, chapter 3, On the affections about the kidneys] wrote: 'But if the periodical evacuation does not take place, they are afflicted with headache; their eyes become dull, dim, and rolling: hence many become epileptic; others are swollen, misty, dropsical' . Here he describes metanephric acute renal failure due to stone disease probably accompanied by metabolic acidosis with neurological symptoms.

Nikiforos Vlemmydes (13th century), a Byzantine literary figure, has probably written a manuscript named 'On drops by the wise Vlemmydes' where he describes in ode 9, verse 17:1-18:4 , a patient with hematuria, on confusion, aggressive, with dry mouth and tetany. These symptoms apply to an end-stage renal disease patient with metabolic acidosis and hypocalcemia.

CONCLUSIONS: It's amazing how descriptions of physicians so many centuries ago match with the clinical presentation of patients we deal with, in our clinical practice nowadays. Even though there is a huge difference in technological means, signs and symptoms remain the same.