INTRODUCTION

The realization that the enzyme systems and metabolic processes responsible for the maintenance of cellular functions are dependent on the environment with stable electrolytes concentrations, over 100 years ago, to describe the ‘milieu intcrieur’. Complex homeostatic mechanisms have evolved to maintain the constancy of the internal environment, ***(Aitkenhead, 2006).***

Alterations of electrolytes content and distribution can produce multiple organ system dysfunctions during the perioperative period. For example, impairment of central nervous system, cardiac, and neuromuscular function is likely in the presence of electrolyte disorders (sodium, potassium, calcium, magnesium). Management of patients manifesting water and electrolyte disturbances is based on an understanding of the distribution of total body water and electrolytes. Often the signs and symptoms of electrolyte disturbances are related more to the rate of change and less to the absolute change ***(Stoelting and Dierdorf, 2002)***.

Electrolyte disorders are common clinical problems, especially in hospitalized patients. Since these disorders arc accompanied by significant morbidity and mortality, an appropriate and rapid treatment is mandatory ***(Gougoux, 2001)***.