

INTRODUCTION

An accurate assessment of hydration in haemodialysis patients presents a significant challenge especially in growing children.

Clinically, assessment of dry body weight is used to develop a dialysis prescription or to determine the amount of ultrafiltration required. Dry weight is considered to be the patient's weight at normal or close to normal Extracellular fluid volume. Inadequate blood pressure control most often is due to a failure to achieve and maintain dry weight, and therefore blood pressure becomes an important parameter for the determination of dry weight, since most patients are normotensive at this weight. Edema and heart rate are other clinical parameters indicating increased deviation from dry weight. However, these clinical markers alone do not suffice to assess dry body weight secondary to changes in lean body mass and body fat, particularly in children.

Inferior vena cava diameter (IVCD) has been introduced as non-invasive means of assessing dry weight, but further clinical evaluation is required to establish it.

Significant correlation was found between IVCD and mean atrial pressure, total body volume as determined by radioiodinated serum albumin method and electrical bioimpedance. To the best of our knowledge only one study reported IVCD as a parameter for estimation of dry weight in children on haemodialysis. The present study was undertaken to evaluate the usefulness of IVCD, measured by ultrasonography, in the assessment of hydration in children treated with haemodialysis.