
Correlat on of proteinuria to protein creatinina ratio in urine in some renal diseases

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This work has been carried out to study the correlation between proteinuria and PTN/CR ratio in random urine sample. The study comprised presenting with nephrotic syndrome and acute glomerulonephritis, and 64 patients apparently normal children of an age between 3 years and 16 years. Protein and creatinine were estimated in random urine sample and ratio were calculated. Protein in 24 hour were estimated, protein over 12 hour per day and protein over 12 hour overnight were calculated of each collection. Relations between PTN/CR ratio in random urine sample and proteinuria was found in our study. The following results were obtained after statistical study: 1- PTN/CR value in normal control 65 children less than 0.33 mg/mg i.e. mean value 0.071 (+ 0.06) mg/mg. 2- PTN/CR value in patients presenting with acute, glomerulonephritis range between 0.35-5.89 mg/mg with mean value 1.339 (+ 1.516). 3- PTN/CR value in patients presenting with nephrotic syndrome range between 1.0500 and 13.79 mg/mg and mean value 4.012 (+ 2.46). 4- The level above 0.33 in PTN/CR ratio points to diseased child while level above 5.88 (+ 6) points to nephrotic patients. 5- The high level points to nephrotic rather than nephritic disease. 6- The protein 12 hour per day and over 12 night show higher individual variations so that their predictive values on PTN/CR could not be achieved in this study. On the other hand, in nephrotic patients weaker correlations had been found between the three protein levels and PTN/CR, so their predictive effect could not be achieved. 7- Protein 24 hour represents the most important with predictive effect to PTN/CR ratio. Thus we can depend on PTN/CR ratio in diagnosis of renal disease presenting with proteinuria instead of collection of 24 hour urine to estimate proteinuria. This was an accurate method to estimate renal disease which presenting with proteinuria and can avoid an error in collection especially in children due to ignorance of the mother and nectornal enurces of the children. This method is simplest and easiest method to diagnose diseases presenting with proteinuria and normal children who have not renal disease presenting with proteinuria.