2.2 Magnesium analysis assay

Quantitative analysis of magnesium in human serum is conducted using Xylidyl Blue-I Method. A Magnesium kit was used (Mindray Bio-Medical Electronics Co.,Ltd, China). Mg serum samples were analyzed according to the manufacturer procedures. Briefly, collected samples were centrifuged before the assay, to get rid of any possible precipitates, then 10µl mixed thoroughly with 1ml reagent, at 37C˚. The reagent is a combination of xylidyl blue 0.1mM, EGTA 0.13mM, DMSO 1.4M, Buffer, and surfactants. EGTA is used to eliminate calcium interference, while the surfactant system is included to remove protein interference.A blank was prepared by mixing 10µl distilled water with 1ml reagent. The absorbance was read five minutes after the sample preparations, using Mindray BS 200 chemical analyzer (Mindray Bio-Medical Electronics Co.,Ltd, China).

2.3 Data analysis

Data were expressed as Mean ± SD. Comparisons of variables were assessed by using t-test using SPSS (version 17.0). P value of <0.05 is considered statistically significant. Mg normal serum level was set as (1.5 to 2.4 mg/dL) (Geiger & Wanner, 2012; Kupetsky-Rincon & Uitto, 2012).