Clinical application of iPTH detection in diagnosis of chronic kidney disease

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View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the clinical application of iPTH detection in diagnosis of chronic kidney disease. Methods: A total of 124 patients with chronic kidney disease served as experimental group and 30 cases served as control group. Fasting serum were used to evaluate the serum levels of blood urea nitrogen (BUN), creatinine (Cr), calcium (Ca), phosphorus (P), plasma intact parathyroid hormone (iPTH), and glomerulate filtration rate (GFR) was calculated with the formulation of MDRD. Relationship of plasma level of iPTH with GFR and serum levels of BUN and Cr were analyzed by Pearson correlation analysis. Results: (1) The levels of Ca, P and iPTH were abnormal in patients with chronic kidney disease, and there were significant differences in these parameters among these groups (P<0.05), (2) plasma level of iPTH was positively correlated with serum levels of BUN and Cr in patients with chronic kidney disease and negatively correlated with GFR according to Pearson correlation analysis. Conclusion: Plasma level of iPTH increases in patients with chronic kidney disease and has negative correlation with GFR. Plasma level of iPTH detection could be used to indicate the abnormality of Ca and P and could also reflect the impairment of renal function.

[KEY WORDS] Chronic kidney disease; Intact parathyroid hormone; Glomerulate filtration rate