Value of C-reactive protein, albumin and prealbunin in diagnosis of aortic valve calcification patients with maintenance hemodialysis

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

[ABSTRACT] Objective: To study the value of C-reactive protein, albumin and prealbumin in diagnosis of aortic valve calcification patients with maintenance hemodialysis. Methods: A total of 156 patients with maintenance hemodialysis (MHD) admitted from January 2008 to June 2010 were selected, and divided into calcification group and non-calcification group. According to the degree of calcification, patients with calcification were divided into mild narrow group, moderate and severe narrow group. The age difference, levels of C-reactive protein, albumin, prealbumin were also determined. Results: 25.0% of patients <=45 years old, 44.8% of patients aged 45 to 50 years old, and 75.8% of patients >=50 years old had calcification, showing significant difference in incidence of calcification among those three groups (P<0.05). As aging, the incidence of calcification was significantly increased. Levels of C-reactive protein, albumin, prealbumin were significantly lower in all calcification groups including mild narrow group, moderate, and severe narrow group (P<0.05). Levels of prealbumin and hsCRP were significantly lower in moderate and severe narrow group than non-calcification group (P<0.05). There was significant difference in albumin among groups (P<0.05). Conclusions: PA, ALB and hsCRP are related with aortic valve calcification in patients with MHD. Albumin can be used as indexes for judging degree of aortic valve calcification, and prealbumin and hsCRP can be used as indexes for diagnosis of aortic valve calcification.

[KEY WORDS] C-reactive protein; Albumin; Prealbumin; Blood dialysis; Aortic valve calcification