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## Fluctuation of serum C3 levels reflects disease activity and metabolic background in patients with IgA nephropathy

(血清 C3 値の変動は IgA 腎症の活動性や代謝異常を有する患者背景を反映する)

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### Abstract

We focused on the fluctuations of serum C3 levels throughout the clinical course and investigated the relationship between these fluctuations and clinical findings in patients with IgA nephropathy. IgA nephropathy patients (n = 122) were enrolled in the present study. Serum C3 and other clinical markers at the time of renal biopsy were compared with those at last follow-up ( $6.67 \pm 2.07$  years). Patients were divided into 3 groups based on serum C3 levels: Group I with first C3 levels below the mean  $-1$  SD, which turned into an increase at last observation; Group II with first C3 levels more than the mean  $+1$  SD, which turned into a decrease at last observation; and Group III, with first C3 levels more than the mean  $+1$  SD, which turned into an increase at the last observation. First and last levels of clinical markers were compared among the 3 groups. Serum C3 levels significantly increased at last observation in the groups where clinical symptoms improved. Age, serum total cholesterol and triglyceride levels in Group III were significantly higher than those in Group I. Group II showed a significant reduction of urinary protein. Groups I and II maintained renal function, but Group III showed a significant deterioration of renal function. It appears that the levels and fluctuations of serum C3 might reflect the disease activity and metabolic alteration in patients with IgA nephropathy.