Children with Henoch–Schönlein purpura with low complement levels: follow-up for >6 years

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Dear Editor

In 2012, we published a study in *Pediatric Nephrology* in which we reported our findings that the reduction of complement in children with Henoch–Schönlein purpura (HSP) with low complement components is only a transient phenomenon and that the decrease of complement does not affect the prognosis of the disease [1]. It had been reported earlier that HSP patients with low complement components may develop systemic lupus erythematosus (SLE) within 1–2 years [2]. Given that the mean follow-up time of our original study was only 8.2 ± 2.5 months [1], we continued to follow the pediatric HSP patients with low complement components to determine whether they developed SLE.

From October 2010 to November 2016, a total of 3765 pediatric patients with HSP were hospitalized in the Children's Hospital of Soochow University, of whom 265 had low levels of complement. Of these 265 patients with low complement, 156 were boys and 109 were girls. The mean age was 7.18 ± 2.08 years. The average levels of C3 and C4 were 0.69 ± 0.21 (normal C3 level 0.79–1.52) g/L and 0.06 ± 0.05 (normal C4 level 0.16–0.38) g/L, respectively. Of the 265 patients with low complement, 33 were not

examined using the anti-streptolysin O (ASO) titer test, 32 had normal ASO titers, and the remaining 200 children had elevated ASO titers, with an average of 1191.45 ± 486.23 (normal value <250) IU/mL.

The follow-up lasted an average of 3.80 ± 1.82 years, and 19 patients were lost to follow-up. One patient was diagnosed with hyperthyroidism 3 weeks after discharge and another patient was diagnosed with Kawasaki disease 1 month after discharge. No patient developed SLE.

We conclude that the decrease in complement level in HSP indicates that complement activation is involved in the development of HSP, but that it does not affect the prognosis of HSP and does not develop into SLE.

References

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