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Should we follow up children with Henoch-Schönlein syndrome?

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SUMMARY We reviewed 31 children who had had Henoch-Schönlein syndrome without nephritis at least 5 years before. None was found to have progressive renal disease and these patients do not require the same long-term follow-up as those with clinical renal involvement.

Although there may be relapses of the abdominal pain, arthralgia, and rash of the Henoch-Schönlein syndrome (HSS) it is the degree of glomerular involvement which determines the long-term morbidity and mortality. About 70% of children have nephritis (haematuria or proteinuria) at presentation (Meadow, 1978) but evidence of renal involvement can be found by more elaborate investigations in most patients. In a few patients with HSS/nephritis the glomerular disease may progress to renal failure: we wondered if a similar deterioration could occur in those without clinical nephritis initially.

Patients, methods, and results

We reviewed the records of 79 patients who had presented with HSS before 1972 and found 52 without haematuria, proteinuria, or urinary casts on at least one occasion during the acute phase of the illness. 31 (19 boys and 12 girls) attended for re-examination: their course at presentation was no different from the nonattenders. The average age of

onset of HSS was 5 years (range 7 months to 12 years 5 months), and at review was 12 years 7 months (8 years 4 months to 20 years 5 months) after an average interval of 7 years 11 months (4 years 5 months to 11 years 1 month). A medical history and blood pressure measurement were obtained, and the urine was examined microscopically for cells and casts and by dipsticks for blood and albumin.

Two patients, 8 and 9 years after HSS, had had periodic painless swelling of their knees which was thought to be of musculoskeletal origin rather than a persistent arthritis. The blood pressure was normal in all and urine normal in 28 of the 31 patients. Three boys who were otherwise normal had proteinuria which was transient in 2 and persistent in one (Table).

Discussion

The nephritis of HSS varies in its presentation from being asymptomatic to a rapidly progressive glomerulonephritis. Careful follow-up has shown that although in most patients the nephritis heals, in a few it does not. Of 88 patients followed up for more than 6½ years, 18 (20%) had progressive renal disease (Counahan *et al.*, 1977). Three of these patients who were normal at a 2-year follow-up now had more than 1 g proteinuria per day (1) or hypertension (2), while 6 patients with minor urinary abnormalities 2 years after HSS later showed heavy

Table Details of 3 cases of Henoch-Schönlein syndrome with urine abnormalities at follow-up

Case	Age at onset (years)	Symptoms of acute disease	Age at review (years)	Blood pressure (mmHg)	Abnormality
1	3.0	R, SS, AP, AR	10.5	80/40	+ Proteinuria on 2 tests, 24-hour protein <0.1 g
2	5.0	R, AP, AR	15.0	105/60	+ + + Proteinuria on 1 test, trace on 1 test, 24-hour protein 0.3 g (7 mg/m ² per hour). Further investigations refused
3	0.7	R, AR	9.9	100/60	Trace proteinuria on 1 test, negative on 2 further tests

R = rash, AP = abdominal pain, AR = arthritis, SS = scrotal swelling.

proteinuria (3), renal insufficiency (2), or hypertension (1). Focal proliferative glomerulonephritis with renal insufficiency (Meadow *et al.*, 1972), and temporary hypertension (Du Bois, 1969), have been reported in children with HSS and normal urinary sediment at presentation of the rash. Abnormal renal histology has been found in children with normal urine at onset of HSS (Greifer *et al.*, 1966) and it is likely that transient haematuria or proteinuria may be missed by once- or twice-daily urine tests. It therefore seemed possible that a few children thought not to have nephritis initially might deteriorate in the same way as the few with nephritis and show signs of renal disease at follow-up. If so, this might also explain the cause of some renal disease and hypertension in adults. The results of this study do not support this; they suggest that the prolonged follow-up of at least 5 years which is recommended for children with HSS/nephritis is unnecessary for those with normal urine at the onset of the rash.

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