Hypertension in Henoch–Schönlein purpura with minimal urinary findings

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Abstract

Though hypertension is a common feature of Henoch–Schönlein purpura (HSP) acute nephritis, it is seen only rarely and transiently if renal function is normal and abnormal urinary findings are minimal. We report a 3.4 year old girl who had the typical arthritis and rash of HSP, but also had significant hypertension with only minimal urinary findings. Imaging investigations revealed one normal kidney, and one that was almost destroyed from previous reflux nephropathy; her hypertension resolved after unilateral nephrectomy. Other causes of hypertension should be excluded in children with HSP and minimal urinary findings.

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Renal involvement in Henoch–Schönlein purpura (HSP) is common, with an incidence of 20–50%.

Figure 1  Nephrectomy specimen. (A) Fresh; (B) after fixation and sectioning.

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renal function. She underwent an elective left nephrectomy (fig 1). The histology was diagnostic of reflux nephropathy, and showed no features of dysplasia or HSP; glomerular staining for IgA was negative.

Post-nephrectomy, her systolic blood pressure is normal at 90 mm Hg without any medication, and her urinary albumin:creatinine ratio is normal at 8.0 mg/mmol. However, she has continued to develop new crops of HSP skin lesions.

Discussion
As hypertension has been described as occurring in six children with HSP without renal impairment or urinary abnormalities,2,3 it has been suggested that it is reasonable to defer an extensive evaluation for severe hypertension in this setting until well after the other manifestations of HSP have resolved.2 However, considering that HSP with minimal nephritis is relatively common, the reported frequency of associated hypertension makes this a very rare complication. It is probably less common than the 1 in 1000 incidence of asymptomatic hypertension identified by performing routine blood pressure measurements in ill children.4 The commonest cause of unsuspected hypertension in children is scarring from reflux nephropathy.5 We would therefore argue that delaying investigations for other causes of hypertension in a child with mild HSP nephritis is inappropriate, especially as the initial imaging tests are minimally invasive and HSP may take a very long time to resolve. In the case we describe, the child continued to crop HSP rashes for months after she had received definitive treatment for her hypertension.


Quiz

A previously fit and well 15 year old suffered a near drowning episode in seawater.

Her initial blood gas was: pH 7.04, pCO2 12.2 kPa, pO2 8.97 kPa, HCO3 24 mEq/l, BE −10.

Her spirometry, carried out on day 10, and subsequently, showed both a restrictive and obstructive picture.

Her chest x ray was as shown in fig 1.

Questions
1. What is the differential diagnosis on the basis of the x ray and the lung function tests?
2. Nursing staff who suctioned her, noted sand in suction catheters while she was ventilated. What investigations would be appropriate next?
3. What is the management of this condition and how common is it?