A Bladder Mass in a Patient with Henoch-Schönlein Purpura

A 5-year-old girl presented with purpura and edema in her extremities for 3 days. A diagnosis of Henoch-Schönlein purpura (HSP) was made by her family doctor. One day after the diagnosis, she was admitted to our hospital because of abdominal pain, gross hematuria, and urinary retention. On examination, palpable purpura and mild abdominal tenderness were observed. A blood laboratory examination revealed no abnormalities. Her urine showed gross hematuria, and a urinary protein/creatinine ratio of 1.8 g/gCr. However, no abnormal casts were observed in the urinary sediments. The shape of the red blood cells was isomorphic.

Ultrasonography revealed a round mass (14.1 × 12.6 mm) at the bladder neck (**Figure 1**, A). Cystoscopy showed a red elevated lesion around the internal urethral orifice (**Figure 1**, B). Histologic examination of the mass biopsy showed leukocytoclastic vasculitis and extravasation of red blood cells in the subepithelial stroma (**Figure 2**, A and B). Hematuria and anuresis were immediately resolved with contemporary urinary catheterization and glucocorticoid administration. The bladder mass was not detected on ultrasonography after 2 months.

Gross hematuria with anuresis in patients with HSP might lead us to suspect purpura nephritis because the most frequent renal urologic involvement of HSP is nephritis.[1] However, ureteral or vesical involvement has also been reported.[2] In one reported case, vesical involvement resulted in the patient being diagnosed with hemorrhagic cystitis.[3]

The bladder mass showed pathology corresponding to leukocytoclastic vasculitis, which resolved along with the disappearance of purpura, although it is unclear whether the bladder mass was associated with HSP because of its rarity.

Assessment of urologic imaging is useful for the differential diagnosis of hematuria and anuresis in patients with HSP before suspecting purpura nephritis. ■

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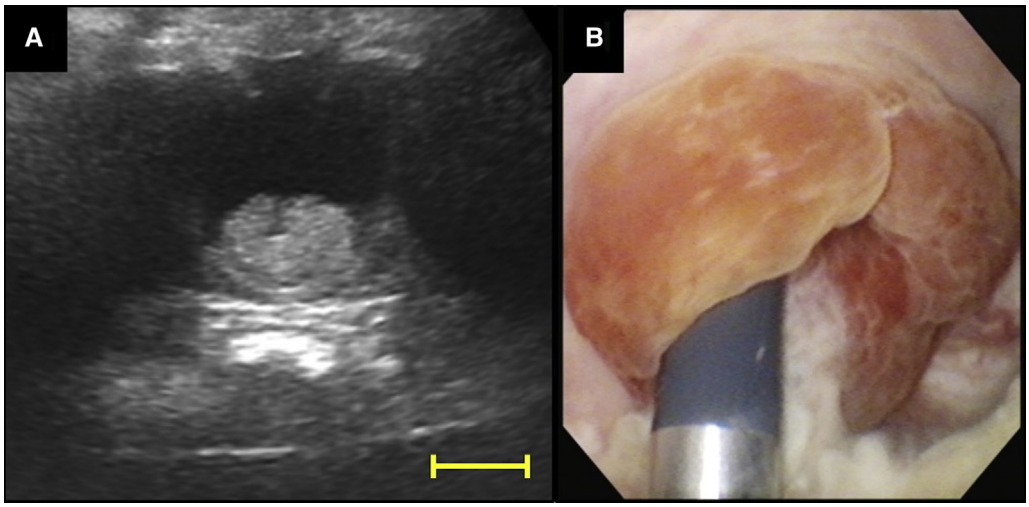

Figure 1. Images of the bladder mass. **A,** Ultrasonography findings at the onset of gross hematuria and urinary retention. The findings revealed a round mass at the bladder neck. Bar: 10 mm. **B,** Cystoscopic image: A red elevated lesion was detected around the internal urethral orifice. The mucosa of the bladder or orifice of the ureter was intact.

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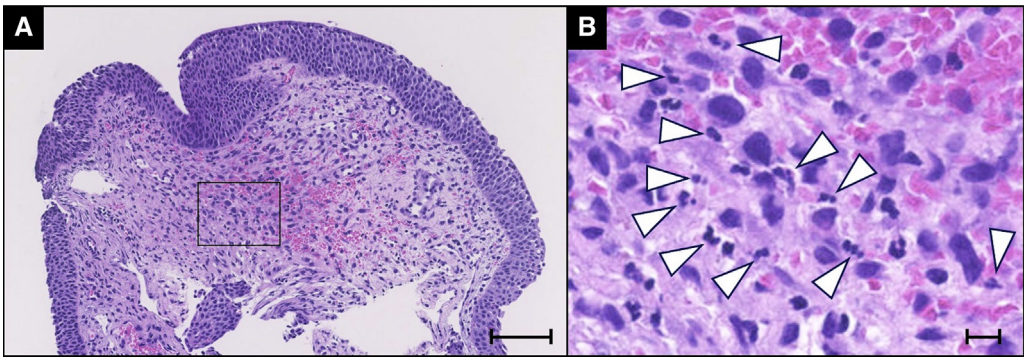

Figure 2. Biopsy specimen from the bladder mass. Leukocytoclastic vasculitis and extravasation of red blood cells in the subepithelial stroma were observed. The arrowhead represents leukocytoclasis. (hematoxylin and eosin stain, **A,** bar: 100 μm, **B,** bar: 10 μm).

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Pulmonary Sarcoidosis: An Unusual Presentation with Acute Abdominal Pain

An 18-year-old boy with no prior medical history presented to the emergency department with an acute-onset, severe, upper abdominal, nonradiating pain with nausea and constipation. He also complained of excessive fatigue and muscle cramps. His general physical examination was unremarkable. The abdomen was soft, with mild tenderness in the epigastrium. Laboratory results showed elevated serum calcium of 15.5 mg/dL (reference, 8.4-10.2 mg/dL) and elevated serum creatinine of 1.9 mg/dL (reference, 0.8-1.5 mg/dL). Electrocardiography demonstrated a short QT interval. His complete blood counts, liver function tests, serum electrolytes, and serum amylase and lipase levels were normal. Further investigation revealed low serum levels of phosphorous (1.5 mg/dL; reference, 2.5-4.5 mg/dL) and serum parathyroid hormone (7.6 pg/mL; reference, 15-68.3 pg/mL) and elevated serum 1, 25-hydroxyvitamin D level (183 ng/mL; reference, 51-80 ng/mL). His 24-hour urinary calcium was elevated, at 350 mg/day (reference, 50-300 mg/day). Computed tomography (CT) of the abdomen and gastroduodenoscopy was normal.

CT of the thorax revealed multiple areas of patchy consolidation with ground glass opacification (**Figure 1**) and multiple homogenous nonnecrotic enlarged hilar and mediastinal lymph nodes (**Figure 2**). Bronchoscopy showed granular bronchial mucosa with nodularity (**Figure 3**). An endobronchial biopsy specimen showed numerous collections of foreign body giant cells with noncaseating granulomas; few of the giant cells showed concentric bodies (Schaumann bodies) (**Figure 4**), which was consistent with the diagnosis of sarcoidosis. Serum angiotensin converting enzyme level was elevated, at 90 nmol/mL/min (reference, <40 nmol/mL/min).

Sarcoidosis is a rare multisystem granulomatous disorder of unknown etiology.[1] Pulmonary involvement is the most common; however, primary gastrointestinal tract involvement is extremely rare, and the majority of cases are asymptomatic.[2] The biochemical profile of our patient was very typical of sarcoidosis, showing hypercalcemia, hypoparathyroidism, and elevated 1, 25-hydroxyvitamin D, indicating underlying granulomatous etiology. The mechanism of hypercalcemia is due to the uncontrolled synthesis of 1, 25-dihydroxyvitamin D3 by macrophages. 1, 25-dihydroxyvitamin D3 leads to increased absorption of calcium in the intestine and increased resorption of calcium in the bone, which results in a low parathyroid hormone level.[1,2] Hypercalcemia is a known complication and variably reported in 2%-63% patients with sarcoidosis.[3] Abdominal pain is one of the common symptoms of hypercalcemia in sarcoidosis.[4] However, other causes, including peptic ulcer, pancreatitis, and nephrolithiasis, also may be complicated by hypercalcemia, which was not present in our patient. The constellation of symptoms has led to the mnemonic of "stones, bones, abdominal

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