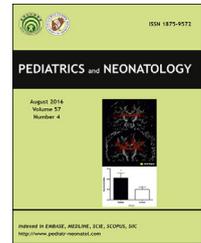


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Letter to the Editor

Successful conservative treatment of gallbladder bleeding during acute flare of systemic lupus erythematosus

1. Introduction

Systemic lupus erythematosus (SLE) is an autoimmune disease with multiorgan involvement and various presentations, including gastrointestinal (GI) manifestation. Most GI symptoms were non-specific, while others could be life-threatening, for instance, intestinal pseudo-obstruction, perforation, mesenteric vasculitis, or intestinal infarction.¹ Among patients with SLE, gallbladder bleeding remains a rare complication, and surgical intervention is often required due to delayed diagnosis.² Here, we report a case of gallbladder bleeding during an acute flare of SLE, which was successfully treated with conservative therapy.

2. Case

A 9-year-old girl received the diagnosis of SLE with initial presentations of generalized edema, anemia, and nephritis. Her SLE disease activity index (SLEDAI) score was 23. Treatment was initiated with methylprednisolone pulse therapy (20 mg/kg/day for 3 days) and maintained with oral prednisolone (2 mg/kg/day), hydroxychloroquine (HCQ), and mycophenolic acid (MPA). A month later, she began having frequent seizure episodes. An antiphospholipid survey was negative, and brain magnetic resonance imaging showed no significant intracranial lesion. She was treated with one dose of intravenous cyclophosphamide (CYC) pulse therapy (500 mg/m²/dose) due to suspicion of central nervous system (CNS) involvement of SLE. Complete remission of symptoms was achieved 3 weeks later (SLEDAI: 12), and we prepared to discharge her with oral prednisolone and MPA. An abrupt onset of severe right upper quadrant abdominal pain was noted. On examination, the

temperature was 36.8 °C, the heart rate was 150 bpm, the respiratory rate was 30 cpm, the blood pressure was 150/90 mmHg, and the Murphy's sign was positive. Laboratory results revealed decreased hemoglobin (10.3–7.4 g/dL), C3 (59.7–49.5 mg/dL) and C4 (9.4–4.4 mg/dL) levels. Her white blood count was mildly elevated (18,600/uL) and C-reactive protein (0.14 mg/dL), activated partial thromboplastin time (aPTT), and prothrombin time (PT) were all within normal limits. Abdominal sonography revealed a distended gallbladder, measuring 105.3 × 40.4 mm, filled with heterogeneous echogenic material (Fig. 1A). Computed tomography (CT) confirmed active gallbladder luminal hemorrhage with active contrast medium extravasation into gallbladder lumen (Fig. 1B and C). Meanwhile, recurred generalized tonic-clonic seizure was found, with unremarkable brain CT. Due to the above findings, SLE flare up (SLEDAI: 25) complicated with gallbladder bleeding and CNS involvement was impressed. The pediatric surgeon suggested conservative treatment first regarding gallbladder bleeding, and surgery was indicated if the clinical condition deteriorated. She was treated with CYC pulse (500 mg/m²/dose) therapy for 1 day, and maintenance intravenous methylprednisolone (equivalent to oral prednisolone 1 mg/kg/day), while stabilizing her vital sign with fluid supplement and blood transfusion. Empirical antibiotics with intravenous Ceftriaxone was administered since the patient was immunocompromised. Gallbladder bleeding stopped on the next day, and she started enteral feeding smoothly and was free of abdominal pain four days later. Sonography revealed decreased gallbladder size (62.6 × 44.2 mm) on the eighth day. She recovered well without surgical intervention and was discharged on the 10th day with oral prednisolone, MPA, and HCQ for SLE control. Since then, she followed up regularly at our

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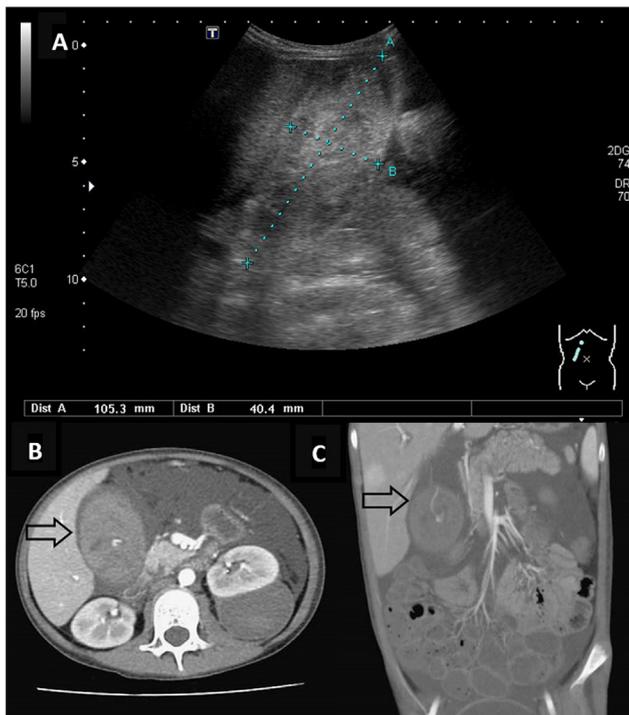


Figure 1 The images of gallbladder bleeding. (A) Sonography showed distended gallbladder with heterogeneous echogenic material. (B, C) Computed tomography (CT) showed active gallbladder luminal hemorrhage with the arrows pointing active contrast medium extravasation into gallbladder lumen.

outpatient department with satisfying condition for more than 2 years.

Gallbladder bleeding remains uncommon in SLE and possible differential diagnosis includes trauma, malignancy, cholecystitis, and bleeding disorders.³ Our patient had no previous trauma history. CT scan imaging did not reveal the presence of neoplasm, gallstones, or cholecystitis. She was not taking any anticoagulants and had normal aPTT and PT. This case report, concerning a patient with pediatric SLE presenting with gallbladder bleeding and who recovered successfully with CYC pulse therapy and concomitant steroid use, highlights the importance of early recognition of this complication and supports first considering conservative treatment in patients with stable hemodynamic.

Declaration of competing interest

The authors have no conflicts of interest relevant to this article.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.pedneo.2022.07.009>.

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