

Dear editors,

Thank you very much for giving us an opportunity to revise our manuscript. We appreciate the editors and reviewers very much for their constructive comments and suggestions on our manuscript entitled "Acute flare of systemic lupus erythematosus with extensive gastrointestinal involvement: A case report". We have revised the manuscript, point-by-point, according to the reviewers' comments. All the amendments were highlighted in red in the revised manuscript. We are uploading a 'point-by-point response to the reviewers' file and our revised manuscript for your reconsideration.

We would like to express our great appreciation to you and the reviewers for comments on our manuscript. Looking forward to hearing from you.

Best regards.

Yours sincerely,

Ping Li

Department of Rheumatology, General Hospital of Northern Theater
Command, Shenyang, China.

graceli008@sohu.com

List of Responses

Reviewer #1:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Major revision

Specific Comments to Authors: Systemic lupus erythematosus is currently underdiagnosed, or misdiagnosed especially with other associated diseases, so article is interesting. However, I would like to suggest some changes before publication.

1.First, even article is dealing with interesting topic and shows some influences between SLE and gastrointestinal disorders is poorly to news.

Response: thanks for your advice. SLE can affect any part of the body's organs and systems. Early detection and management of the rare SLE-related GI manifestations are especially challenging due to the lack of specific symptoms and the difficulty in their differentiation from infections and side effects of medications. We are prone to miss or misdiagnosis in clinical practice, which delays the timely treatment of patients and in the most serious cases may lead to the failure of multiple organs and eventual death. We desperately need a simple, easy-to-use test for disease screening. So we confirmed this topic to discuss.

2.This is what I miss in introduction and in discussion also deeper explaining pathophysiology of this process.

Response: thanks for your advice. LMV has a complex pathogenesis and can present clinically as abdominal pain, nausea, vomiting, or severe gastrointestinal bleeding and acute abdomen, with abdominal pain as the first or basic clinical manifestation. There is no standardized diagnosis and treatment protocol for LMV, and early diagnosis is challenging and mainly based on exclusionary diagnosis,

so it is essential to find a rapid diagnosis tool. We explained the pathophysiology deeply in the introduction and discussion parts.

3.Others article is nice, but not too much scientific attractive.

Response: thanks for your advice. In this case, on the one hand, we discussed the diagnosis and treatment of lupus enteritis; On the other hand, We discussed how to evaluate patients' gastrointestinal conditions in a timely and efficient manner, in order to minimize their exposure to radiation. China has a vast territory and a limited level of grassroots medical care. This benefit helps physicians to use simple color ultrasound to conduct preliminary screening for patients with gastrointestinal manifestations, timely detect the presence of gastrointestinal manifestations unique to systemic lupus erythematosus, and reduce misdiagnosis.

Reviewer #2:

Scientific Quality: Grade C (Good)

Language Quality: Grade B (Minor language polishing)

Conclusion: Minor revision

Specific Comments to Authors:

1.The authors must define the terms lupus enteritis and lupus mesenteric vasculitis early in the manuscript. Lupus enteritis is often used as a more generic form and has been defined as vasculitis or inflammation of the small bowel.

Response: thanks for your advice. In the introduction part, I have defined the terms lupus enteritis and lupus mesenteric vasculitis. LE, as vasculitis or inflammation of the small bowel, is often not confirmed by histologic evidence. And the pathophysiology of LE, similar to lupus mesenteric vasculitis (LMV), is an immune-mediated

vasculopathy characterized by immune complex deposition and complement activation.

2.Histologic evidence of vasculitis is often not confirmed histologically, as in this case. The patient had a follow-up ultrasound which confirmed clinical improvement. Why was this and other laboratory work repeated as the patient was clinically improved?

Response: thanks for your advice. In China, the patient's clinical improvement must conclude three aspects: clinical symptoms, laboratory tests, and imaging examinations. So we repeated other laboratory work as the patient was clinically improved by ultrasound.

3.The indication for a CT scan vs. ultrasound is unclear as both are used in diagnosis and follow-up. Is the ultrasound a "screening" test?

Response: thanks for your advice. Why we used a CT scan and ultrasound in diagnosis and follow-up? The patient sought medical advice in the emergency room due to abdominal pain. In order to timely and comprehensively evaluate the abdominal condition, we conducted an enhanced abdominal CT examination. After admission, the patient's condition was severe, and in Grand One Nursing and unable to move. Moreover, the patient was a female of childbearing age, so we provided an ultrasonography examination instead of radiation to reduce radiation. Ultrasonography examination is more convenient for hospitalized patients.

4.In the treatment subheading, the intravenous and oral methylprednisolone dose needs to be clarified. Was the dose of intravenous methylprednisolone tapered to 40 mg because the patient received 36mg/day of oral methylprednisolone? When was the intravenous methylprednisolone stopped, and what was the

patient's oral dose at discharge?

Response: thanks for your advice. The intravenous and oral methylprednisolone doses have been clarified. When was the intravenous methylprednisolone stopped and what was the patient's oral dose at discharge? The two questions have been answered.

5.The outcome and follow-up section is a repeat of the patient's initial test, which was normal or improved. The authors would have preferred to repeat the CT scan but opted for an ultrasound because of accessibility. This brings me to my original point of whether this test is necessary and what is the benefit of using one imaging modality over the other.

Response: thanks for your advice. CT is the gold standard for the diagnosis of lupus mesenteric vasculitis. An early and accurate diagnosis of lupus mesenteric vasculitis is critical for a better prognosis, as there is a high risk of bowel perforation if not urgently treated. So I think that CT scans are necessary. What are the benefits of using ultrasound over CT scans? When the SLE-related LMV have been diagnosed, we opted for the ultrasound as the follow-up method. Because ultrasound is radiation-free, it is more appropriate for condition assessment and convenient for hospitalized patients.

6.Can this section be summarized without repeating all the tests to demonstrate that they are normal?

Response: thanks for your advice. The outcome and follow-up section is a repeat of the patient's initial test, this part has been simplified.

7.The following paragraph (last one in the discussion session) can be moved under the paragraph where there was a discussion of LMV :
"Regarding LMV, abdominal enhanced CT is an important examination

technique that can reveal thickened and swollen bowel walls. CT manifestations of LMV included abnormal enhancement of the intestinal wall with edema (target sign) and mesenteric vascular filling (comb sign). The CT diagnosis of ischemic bowel is based on the presence of at least three of the following five signs: bowel wall thickening, the target sign, dilatation of intestinal segments, engorgement of mesenteric vessels, and mesenteric fat stranding[10]. Moreover, in patients with SLE who experience abdominal pain, non-invasive investigations such as ultrasonography can be considered[11] as it enables the visualization of edematous thickening of the small intestine, in which the submucosal edema of the Kerckring fold resembles an accordion[12]. Therefore, ultrasonography is useful in both the diagnosis and follow-up of LMV.”

The paragraph should now read “The pathophysiology of LE is similar to that of lupus mesenteric vasculitis (LMV), an immune-mediated vasculopathy characterized by immune complex deposition and complement activation[4]. The submucosa, filled with a mild diffuse inflammatory infiltrate of mononuclear cells, becomes edematous, and a hemorrhage can be observed mostly in the muscular and subserosal layers. Fibrinoid necrosis, leukocytoclasia on the vascular wall, and fibrin thrombus formation can be observed in the subserosal vessels. Mesenteric vasculitis is one of the most devastating complications of SLE, with an estimated prevalence of 0.2-9.7% among all patients with SLE and 29-65% in patients who manifested abdominal pain[5]. Regarding LMV, abdominal enhanced CT is an important examination technique that can reveal thickened and swollen bowel walls. Therefore, ultrasonography is useful in both the diagnosis and follow-up of LMV.”

Response: thanks for your advice. We have adjusted the order of the paragraphs.