



## CLINICAL IMAGE

# Massive splenomegaly requiring differential diagnosis of hematologic malignancies

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**Funding information**

There is no funding for this article

**Abstract**

An 85-year-old woman presented with pain and a palpable mass in her left flank. Abdominal computed tomography revealed massive splenomegaly and para-aortic lymphadenopathies. Bone marrow biopsy showed CD79a, CD20, and bcl-2-positive atypical lymphocytes, which led to the diagnosis of splenic marginal zone lymphoma.

**KEYWORDS**

massive splenomegaly, splenic marginal zone lymphoma

## 1 | CASE

An 85-year-old woman with good appetite, no fever or weight loss visited our hospital because of left flank pain. Physical examination revealed a palpable mass with tenderness in her left flank, no palpable lymph nodes in any area of the body, and no other abnormal findings. Blood examination revealed: white blood cell count:  $6.1 \times 10^9/L$ , hemoglobin: 106 g/L, platelets:  $9.7 \times 10^9/L$ , soluble interleukin-2 receptor 4,006 U/mL, and no abnormalities in liver function, including lactate dehydrogenase. Abdominal contrast-enhanced computed tomography revealed massive splenomegaly of >20 cm without mass lesion, and para-aortic lymphadenopathies (Figure 1, Videos S1 and S2). Bone marrow biopsy revealed proliferation of

atypical lymphocytes, and immunostaining was positive for Cluster Designation (CD)79a, CD20, and bcl-2, which led to a diagnosis of splenic marginal zone lymphoma (SMZL).

SMZL is a rare subtype of non-Hodgkin lymphoma showing splenomegaly and lymphocytosis.<sup>1</sup> The accurate diagnosis of SMZL is delayed because it does not show remarkable clinical symptoms and aggressive clinical courses.<sup>1</sup> The causes of massive splenomegaly are leukemias, non-Hodgkin lymphoma, myelofibrosis, metastatic cancer, primary splenic tumors, infection, autoimmune hemolytic anemia,  $\beta$ -thalassemia major, megaloblastic anemia, hereditary spherocytosis, and infiltrative conditions.<sup>2</sup> When seeing massive splenomegaly, hematologic malignant diseases should be ruled out first.



**FIGURE 1** Abdominal contrast-enhanced computed tomography findings. Abdominal contrast-enhanced computed tomography images showing massive splenomegaly with a dilated splenic vein (arrowhead) and enlarged para-aortic lymph nodes (arrows)

#### ACKNOWLEDGEMENT

We thank Jane Charbonneau, DVM, from Edanz (<https://jp.edanz.com/ac>) for editing a draft of this manuscript.

#### CONFLICT OF INTEREST

The authors have declared no conflict of interest.

#### AUTHOR CONTRIBUTIONS

Tago M was involved in the conception of the study, and in the literature search and drafting the manuscript. Fujiwara M, Tokushima M, Yamashita S, Tokushima Y, and Aihara H were involved in the conception of the study and drafting the manuscript. Nakashima T, Makio S, and Hirakawa Y were involved in the literature search and clinical care of the patient. Yamashita SI was involved in the conception of the study and revising the manuscript.

#### ETHICAL APPROVAL

This manuscript conforms to the provisions of the Declaration of Helsinki in 1995 (as revised in Brazil 2013).

#### CONSENT

Written informed consent to publish this report was obtained from the patient in accordance with the journal's patient consent policy.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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#### SUPPORTING INFORMATION

Additional supporting information may be found in the online version of the article at the publisher's website.

**How to cite this article:** Tago M, Fujiwara M, Nakashima T, et al. Massive splenomegaly requiring differential diagnosis of hematologic malignancies. *Clin Case Rep.* 2022;10:e05512. doi:[10.1002/ccr3.5512](https://doi.org/10.1002/ccr3.5512)