

# In search of “red flag” symptoms accompanying spinal pain in diffuse large B-cell lymphoma

Bartłomiej Sporniak<sup>1</sup>, Kinga Bańkowska<sup>1</sup>, Katarzyna Sokołowska<sup>1</sup>,  
Dawid Bereza<sup>1</sup>, Karolina Paprocka<sup>2</sup>

<sup>1</sup> Student Scientific Circle of Oncology, Wrocław Medical University, Wrocław, Poland

<sup>2</sup> Department of Internal Medicine, J. Dietl Specialist Hospital, Kraków, Poland

A 34-year-old man presented to his general practitioner (GP) with lumbosacral back pain. Due to his underlying illnesses (type 2 diabetes and obesity) he was advised to lose weight. Abdominal ultrasound showed no abnormalities.

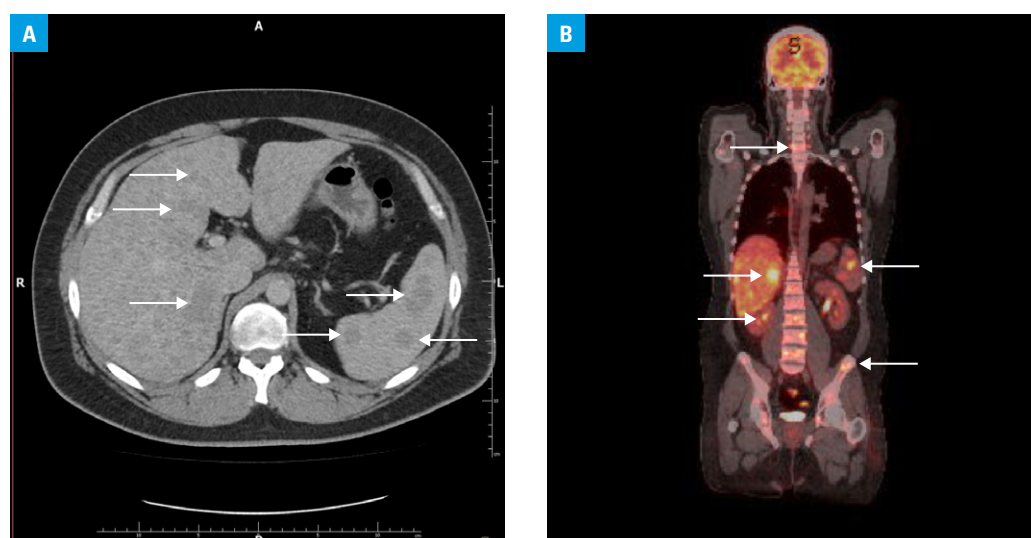
During the next month, his pain worsened despite losing 3 kg of weight. He also developed paresthesia in digits 2 and 4 of his left hand.

In the presence of these new symptoms, he self-referred for an orthopedic consultation. X-ray and magnetic resonance imaging of the cervical spine revealed multilevel lesions suggestive of a hematologic disorder. Two months later, the patient presented to the emergency department with worsening back pain and reported episodes of low-grade fever (up to 38 °C) and excessive sweating. On physical examination there was no lymphadenopathy or hepatosplenomegaly. No changes were detected in the blood smear.

The patient was admitted to the internal medicine department for further diagnostic evaluation.

Ultrasound scanning and computed tomography (CT) showed lesions suggestive of metastases in the liver and spleen (FIGURE 1A) and numerous lung nodules bilaterally with enlarged mediastinal lymph nodes. Positron emission tomography-CT revealed abnormal metabolic activity in the lungs, liver, skeletal system, and many lymph nodes (FIGURE 1B). An axillary lymph node biopsy showed a diffuse large B-cell lymphoma (DLBCL). The patient received aggressive chemotherapy in the hematology department and went into remission.

Chronic back pain is a very common presenting complaint, yet it can represent serious diagnostic uncertainty. Establishing its origin, be it common mechanical pathologies (not requiring diagnostic imaging and managed conservatively), or rare malignant ones (which should lead to



**FIGURE 1** A – a computed tomography (CT) scan of the abdomen with numerous lesions suggestive of metastasis, located in the liver and spleen (arrows); B – a positron emission tomography-CT scan showing abnormal metabolic function in the liver, spleen, bones, and lymph nodes (arrows)

Correspondence to:  
Karolina Paprocka, MD,  
Department of Internal Medicine,  
J. Dietl Specialist Hospital,  
ul. Skarbowa 1, 31-121 Kraków,  
Poland, phone: +48 12 68 76 230,  
email: bart6b@gmail.com  
Received: May 2, 2022.  
Revision accepted: June 21, 2022.  
Published online: July 1, 2022.  
Pol Arch Intern Med. 2022;  
132 (9): 16283  
doi:10.20452/pamw.16283  
Copyright by the Author(s), 2022

more detailed evaluation) is an important clinical skill. Given that obesity is one of the most common reasons for lower back pain<sup>1</sup> and that this patient did not present with any “red flag” symptoms during his first visit, he was correctly recommended to lose weight by his GP. However, neurological symptoms (paresthesia) should raise some suspicions,<sup>2</sup> and rightly the clinician ordered further imaging. It should be noted that DLBCL can present with neurological symptoms from any region of the spine (in this case the pain originated in the lumbosacral region with neuropathic symptoms in the cervical spine).

Low-grade fever and sweating are nonspecific symptoms that should be considered in the context of the whole clinical picture. The differential diagnoses should include infectious and inflammatory diseases (eg, connective tissue disorders and inflammatory bowel disease), other chronic illnesses (such as hepatic cirrhosis or hepatitis), and malignant disorders (especially blood and lymphatic system disorders).

DLBCL is usually diagnosed at the advanced stage, when the survival rate is much lower than at earlier stages.<sup>3</sup> Therefore, identifying “red flag” symptoms and conducting a follow-up after the initial consultation is crucial for the early detection of certain hematological disorders and achieving more frequent successful therapeutic outcomes in aggressive lymphomas, such as DLBCL.

## ARTICLE INFORMATION

**ACKNOWLEDGMENTS** None.

**FUNDING** None.

**CONFLICT OF INTEREST** None declared.

**OPEN ACCESS** This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License (CC BY-NC-SA 4.0), allowing third parties to copy and redistribute the material in any medium or format and to remix, transform, and build upon the material, provided the original work is properly cited, distributed under the same license, and used for noncommercial purposes only. For commercial use, please contact the journal office at pamw@mp.pl.

**HOW TO CITE** Sporniak B, Bańkowska K, Sokółowska K, et al. In search of “red flag” symptoms accompanying spinal pain in diffuse large B-cell lymphoma. *Pol Arch Intern Med.* 2022; 132: 16283. doi:10.20452/pamw.16283

## REFERENCES

- 1 Chou L, Brady SRE, Urquhart DM, et al. The association between obesity and low back pain and disability is affected by mood disorders. *Medicine (Baltimore).* 2016; 95: e3367. [↗](#)
- 2 Henschke N, Maher CG, Refshauge KM, et al. Prevalence of and screening for serious spinal pathology in patients presenting to primary care settings with acute low back pain. *Arthritis Rheum.* 2009; 60: 3072-3080. [↗](#)
- 3 Durmaz M, Visser O, Posthuma EFM, et al. Time trends in primary therapy and relative survival of diffuse large B-cell lymphoma by stage: a nationwide, population-based study in the Netherlands, 1989-2018. *Blood Cancer J.* 2022; 12: 38. [↗](#)