Mediterranean Journal of Hematology and Infectious Diseases

Letters to the Editor

Omental Splenosis Mimicking Peritoneal Carcinomatosis

Keywords: Splenosis; Splenectomy; Carcinosis.

Published: May 01, 2026 **Received: February 18, 2026** **Accepted: April 02, 2026**

Citation: Piccin A., Sharma S., Reinhardt C., Batool H., Mohilitchi V., O' Connell M. Omental splenosis mimicking peritoneal carcinomatosis. Mediterr J Hematol Infect Dis 2026, 18(1): e2026038, DOI: http://dx.doi.org/10.4084/MJHID.2026.038

To the editor.

We report on a case of splenosis first misdiagnosed as peritoneal carcinosis. Splenosis is a benign condition defined as heterotopic autotransplantation of splenic tissue following abdominal trauma or splenectomy.[1,2] These ectopic splenic implants are usually asymptomatic and non-problematic, and they are considered to have a degree of immunological function. Splenosis should be suspected on CT imaging when multiple well-defined nodules with attenuation characteristics similar to splenic tissue are identified in patients with a history of splenic trauma or splenectomy, particularly when these lesions are located along peritoneal or serosal surfaces. Peritoneal carcinomatosis is the most common malignant process involving the peritoneal cavity and predominantly arises from colorectal, gastric and gynaecological malignancies.[3-5] Computed tomography (CT) is the primary imaging modality for evaluating suspected peritoneal carcinomatosis and typically demonstrates omental thickening and mesenteric infiltration. Magnetic resonance imaging (MRI) may provide additional characterisation of peritoneal lesions and can be useful in selected cases. The detection rate increases when ascites is present, with ascites reported in up to 70% of cases. Because splenic implants may appear as multiple peritoneal nodules on cross-sectional imaging, splenosis can closely resemble peritoneal carcinomatosis. Failure to recognise this entity may lead to unnecessary invasive investigations or oncological work-up. This report highlights splenosis as a potential diagnostic pitfall and emphasises the importance of careful clinical history and appropriate nuclear imaging.

Case Presentation. A 65-year-old female patient was referred to the Haematology Department at Mater Private Hospital, Dublin, by her general practitioner (GP) for investigation of asymptomatic macrocytic anaemia and thrombocytosis. She had undergone splenectomy at the age of 17 following abdominal trauma sustained in a road traffic accident. She denied weight loss, night sweats, abdominal pain or other constitutional symptoms. Her regular medications included amitriptyline 10 mg, phenoxymethylpenicillin 333 mg and denosumab 60 mg once daily. On clinical examination, there was no lymphadenopathy or organomegaly. Initial laboratory investigations showed haemoglobin (Hb) of 11.6 g/dL with mean corpuscular volume (MCV) of 102 fL, white blood cell count of 6.9×10^9/L, neutrophils 4.2×10^9/L and platelet count of 423×10^9/L. Vitamin B12, folate and ferritin levels were normal. Viral serology and myeloma screening were negative. There was no evidence suggestive of myelodysplastic syndrome or a myeloproliferative neoplasm. CT scan of the thorax, abdomen and pelvis demonstrated multiple well-circumscribed soft tissue nodules within the anterior peritoneum, anterior diaphragmatic fat and left pelvic sidewall measuring up to 1.4 cm.

The radiological appearance raised suspicion of peritoneal carcinomatosis, representing a significant diagnostic concern. However, the remote history of splenectomy prompted consideration of splenosis as an alternative explanation for the imaging findings.

For further evaluation, nuclear medicine imaging with Tc-99m sulfur colloid SPECT was performed, which confirmed the diagnosis of splenosis.

Discussion. There are two main hypotheses explaining the pathogenesis of ectopic splenic tissue throughout the abdomen: direct implantation of splenic fragments (*splenic seeding*) following trauma or splenectomy, and haematogenous dissemination.[1-4] Clinically and radiologically, splenosis represents an important diagnostic pitfall because it may closely mimic malignant peritoneal disease. Patients with omental splenosis may present with nonspecific abdominal symptoms and may be referred to gastroenterology or surgical services. As a result, the condition has been misdiagnosed as irritable bowel syndrome, inflammatory bowel disease, bowel obstruction, pseudomyxoma peritonei, peritoneal lymphomatosis,

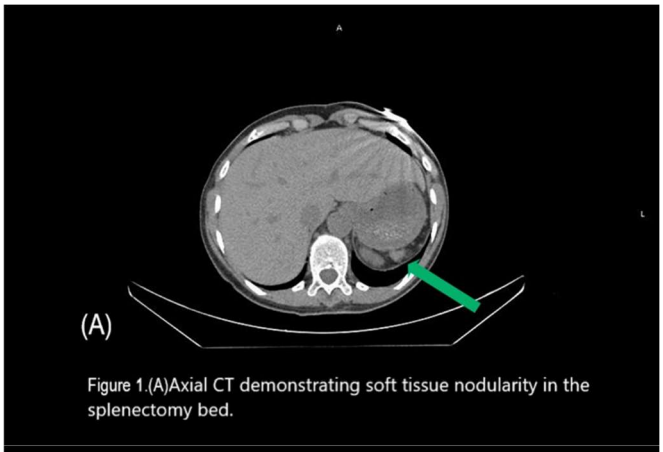

Figure 1.(A)Axial CT demonstrating soft tissue nodularity in the splenectomy bed.

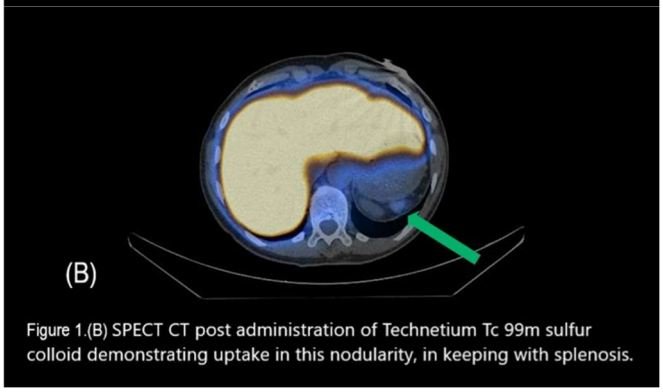

Figure 1.(B) SPECT CT post administration of Technetium Tc 99m sulfur colloid demonstrating uptake in this nodularity, in keeping with splenosis.

tuberculosis, peritoneal mesothelioma, diffuse peritoneal leiomyomatosis and even primary gastrointestinal malignancy.[2-6] The average interval between splenectomy and diagnosis of splenosis is approximately 10 years, although reported cases range from a few months to 40 years. Thrombocytosis after splenectomy is a common finding, and platelet counts may become markedly elevated (>900 ×10⁹/L) in the early postoperative period. Over time, platelet values generally decrease but may remain mildly elevated (>450 ×10⁹/L). Platelet counts in patients with splenosis have occasionally been reported; however, in most cases they remain mildly elevated, suggesting that splenosis alone does not fully restore the hemocatheretic function of the spleen.[7] An open question remains whether patients with previous splenectomy and residual splenosis should also receive antimicrobial prophylaxis and scheduled vaccinations against encapsulated microorganisms, including Streptococcus pneumoniae, Haemophilus influenzae, and Neisseria meningitidis. Previous reports suggest that splenosis alone is insufficient to provide adequate protection against these pathogens. Furthermore, clinicians should be aware that splenosis may also be associated with complications such as bleeding, including gastrointestinal hemorrhage.[6] In the present case, the 48-year interval between splenectomy and diagnosis highlights the possibility of extremely delayed presentation.

Most importantly, this case illustrates how splenosis can mimic peritoneal carcinomatosis on CT imaging. Recognition of this entity and careful review of past surgical history are therefore essential to avoid unnecessary invasive investigations or even unnecessary oncological treatment. When splenosis is suspected, nuclear medicine studies such as Tc-99m sulfur colloid or heat-damaged red blood cell scintigraphy are reliable, noninvasive diagnostic tools that can help clinicians diagnose splenosis.

Andrea Piccin[1,2,3,4,*], Shreya Sharma[1,5,*], Ciaran Reinhardt[6], Huma Batool[1], Viviana Mohilitchi[1] and Martin O' Connell[6].

[1] Haematology Dept., Mater Private Hospital, Dublin, Ireland.
[2] Royal College of Surgeons in Ireland (RCSI), Dublin, Ireland.
[3] Dept. of Engineering, University of Trento, Italy.
[4] University of Medicine Innsbruck, Innsbruck, Austria.
[5] Trinity College Dublin, Dublin, Ireland.
[6] Radiology Department, Mater Public Hospital, Dublin, Ireland.
* These authors contributed equally and should both be considered co-first authors.

Competing interests: The authors declare no competing interest.

Correspondence to: Prof Andrea Piccin. Royal College of Surgeons, RCSI, Dublin, Ireland. Email: andrea.piccin@rcsi.ie

References:

1. Pei B, Hu Z, Pan F. Thoracic splenosis initially misdiagnosed as lung neoplasms: An unusual case and literature review. Medicine (Baltimore). 2026 Jan 2;105(1):e47056 https://doi.org/10.1097/MD.0000000000047056 PMid:41496102 PMCid:PMC12778126
2. Hussain M, Malkova K, Romanov A, Rawas F, Botiralieva GK, Pak N, Chernov YN, Lyapichev KA. Splenosis involved by in situ follicular B-cell neoplasm. Virchows Arch. 2025 Nov 24. https://doi.org/10.1007/s00428-025-04322-z
3. Peng Y, Liang R, Zhang C, Sun L, Zhao J. Abdominopelvic Splenosis Resembling an Ovarian Malignancy: A Case Report. Int J Womens Health. 2025 Oct 30;17:4011-4018 https://doi.org/10.2147/IJWH.S556829 PMid:41190252 PMCid:PMC12581867
4. Hussain M, Malkova K, Romanov A, Rawas F, Botiralieva GK, Pak N, Chernov YN, Lyapichev KA. Splenosis involved by in situ follicular B-cell neoplasm. Virchows Arch. 2025 Nov 24 https://doi.org/10.1007/s00428-025-04322-z
5. Hanifa H, Alhussein H, Mahmandar L, Kadi S, Najjar M, Alhaj A. Unveiling three accessory spleens in one patient: a rare case report and literature review. Int J Emerg Med. 2024 Nov 12;17(1):175 https://doi.org/10.1186/s12245-024-00758-3 PMid:39533206 PMCid:PMC11555858
6. Rodríguez PF, Martínez Fernández R, Aldama ER. Abdominal splenosis as a rare and serious cause of upper gastrointestinal bleeding. Med Clin (Barc). 2026 Feb;166(2):107271

https://doi.org/10.1016/j.medcle.2026.107271
7. Khan PN, Nair RJ, Olivares J, et al.Postsplenectomy reactive thrombocytosis. Proc (Bayl Univ Med Cent). 2009;22(1):9-12 https://doi.org/10.1080/08998280.2009.11928458 PMid:19169391 PMCid:PMC2626351