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Management of Splenic Infarction in Hematologic Malignancies: A Systematic Review of Observational Evidence and Evidence-Based Practice Recommendations

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INTRODUCTION / ABSTRACT

Background: Splenic infarction (SI) is an uncommon but clinically important complication of hematologic malignancies, particularly myeloproliferative neoplasms (MPNs), leukemia, and lymphoma. Management remains poorly standardized.

Objective: To systematically synthesize available evidence on the incidence, clinical course, antithrombotic management, disease-directed therapy, and role of splenectomy and other locoregional interventions in adults with hematologic malignancies and SI.

Methods: PubMed, Embase, Cochrane, EMBASE, MEDLINE, and AMSTAR 2026 was supplemented by citation tracking and relevant society guidelines. Twelve primary observational datasets and two related systematic reviews were included. Risk of bias was assessed using Newcastle–Ottawa domains.

RESULTS

Evidence Base

Twelve primary observational datasets and two related systematic reviews were included. No randomized controlled trials were identified.

MPN-Associated Splenic Infarction

- SI at diagnosis :4.3 (15/347)
- Highest incidence in overt primary myelofibrosis :12.9%
- Incident SI during follow-up :1.4%
- Palpable splenomegaly was the only independent risk factor: HR 14.89% (95% CI 4.00 -55.35)
- All cases were managed conservatively, with no abscess, rupture, or splenectomy.

Anticoagulation & Surgery

- Recurrent SI was uncommon :6/152 re-imaged cancer patients.
- Anticoagulation after SI was **not associated with fewer recurrences**.
- Isolated SI was **not an indication for splenectomy**.
- Splenectomy in myeloid neoplasms carried substantial morbidity (31-43%) and early mortality (9 -18%)

CONCLUSION

Splenic infarction in hematologic malignancies can usually be managed conservatively with treatment of the underlying disease. Therapeutic anticoagulation should not be routinely prescribed for isolated SI and should be reserved for independent indications such as atrial fibrillation or splanchnic-vein thrombosis. Splenectomy should be reserved for complications or selected disease-control indications.

REFERENCES

1. Lee MW, et al. Intern Med. 2022;61:3483–3490.
2. Bewersdorf JP, et al. J Thromb Thrombolysis. 2021;52:854–862.
3. Giladi E, et al. Thrombosis Update. 2026;22:100230.
4. Gunes A, et al. BMC Surg. 2026;26:114.
5. Lluís N, et al. Int J Surg. 2026;112:5604–5614.

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