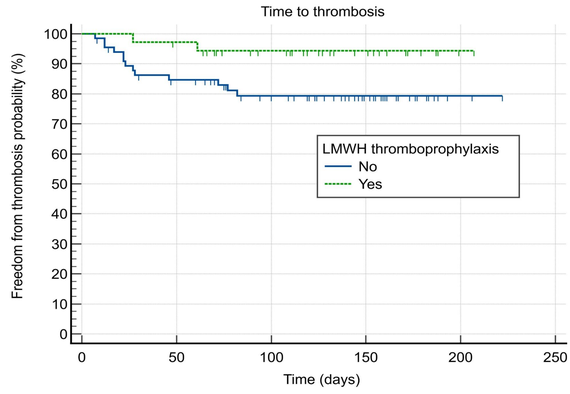
Time-Limited Antithrombotic Prophylaxis Reduces the Risk of PICC-Related Thrombosis in Patients with Aggressive B-Cell Lymphoma Receiving DA-EPOCH-R

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Introduction

Peripherally inserted central catheters (PICCs) are widely used for administration of DA-EPOCH-R, an intensive chemotherapy regimen for aggressive B-cell non-Hodgkin lymphomas (NHLs). Despite their clinical utility, PICCs are associated with a significant risk of catheter-related thrombosis, and the benefit of thromboprophylaxis in this setting remains controversial.



Aim

To evaluate the impact of short-term antithrombotic prophylaxis on the incidence of PICC-related thrombosis in patients receiving DA-EPOCH-R.

Methods

Design: Retrospective cohort (2010–2023).
Patients: 103 adults with aggressive B-cell lymphoma treated with DA-EPOCH-R via PICC.
Groups: 36 received short-term LMWH thromboprophylaxis (1–2 cycles); 67 had no prophylaxis.
Outcome: Symptomatic, imaging-confirmed thrombosis.
Analysis: Univariate and multivariable logistic regression.

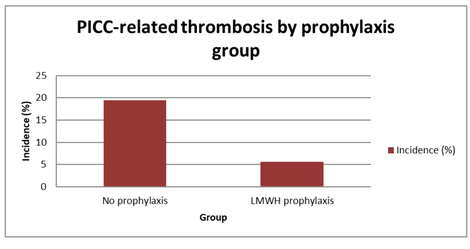
Results

Median age: 64 years
Female: 53%
Thrombosis rate: 12.3% overall
- With prophylaxis: 5.9%
- Without prophylaxis: 19.4% (p=0.011)

Median: 25 days post-insertion

Independent risk factors (multivariable logistic regression):
- Female sex: OR=4.43 (95% CI: 1.31-15.00; p=0.017)
- LMWH prophylaxis protective: OR=0.19 (95% CI: 0.05-0.74; p=0.016)

Safety: No major bleeding events



Conclusion

Short-term LMWH thromboprophylaxis during the first two cycles of DA-EPOCH-R therapy substantially reduces the risk of PICC-related thrombosis without increasing bleeding complications in patients with agressive B-cell lymphoma. Given the early clustering of thrombotic events, time-limited anticoagulation might represent a safe and effective strategy in this high-risk patient population. These findings support a tailored approach to thromboprophylaxis in patients undergoing intensive immunochemotherapy via PICC, warranting prospective validation.

Limitations: Retrospective design, non-randomized allocation, limited sample size.

References

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