

**We performed a retrospective analysis of hospitalized adult patients diagnosed with CRT at our center. We determined rates of progressive thrombosis and bleeding in cohorts of patients who underwent catheter removal vs those who had catheters removed and received anticoagulation” Shatzel et al (2019).**

Abstract:

Peripherally-inserted central catheters (PICCs) are commonly used during hospitalization. Unfortunately, their use can be complicated by catheter-related thrombosis (CRT). Current guidelines recommend 3-6 months of anticoagulation for patients with CRT after catheter removal. This recommendation is based on extrapolation of data on lower extremity thrombosis, as data is lacking regarding the efficacy and safety of more specific management strategies. Many providers feel catheter removal alone is a reasonable treatment option, particularly for patients at risk for bleeding. We performed a retrospective analysis of hospitalized adult patients diagnosed with CRT at our center. We determined rates of progressive thrombosis and bleeding in cohorts of patients who underwent catheter removal vs those who had catheters removed and received anticoagulation. Among 83 total patients, 62 were treated with PICC removal alone, while 21 underwent PICC removal followed by therapeutic anticoagulation. Patients treated with PICC removal alone were more likely to have hematologic malignancy, receive chemotherapy, develop thrombocytopenia, and have brachial vein thrombosis. No patients in the PICC removal plus anticoagulation arm developed progressive thrombosis, while 6.4% of patients treated with catheter removal alone developed a secondary VTE event, including one PE, three DVTs, and five patients (8%) who developed progressive symptoms leading to initiation of anticoagulation. Major bleeding was significantly more common in the PICC removal + anticoagulation arm (28.5% vs. 4.8%  $p = 0.007$ ). Catheter-removal alone results in significantly reduced major bleeding compared with catheter-removal plus anticoagulation. In select patients, catheter removal alone may be an option for CRT.

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## Reference:

Shatzel, J.J., Mart, D., Bien, J.Y., Maniar, A., Olson, S., Liem, T.K. and DeLoughery, T.G. (2019) The efficacy and safety of a catheter removal only strategy for the treatment of PICC line thrombosis versus standard of care anticoagulation: a retrospective review. *Journal of Thrombosis and Thrombolysis*. January 23rd. .

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