

# Validation of an Extrinsic Compression and Early Ambulation Protocol for Diagnostic Transfemoral Angiography:

## A 5-Year Prospective Series

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# Disclosures

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There are no relevant disclosures.

# Introduction

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Access-site complications constitute a substantial portion of the morbidity associated with transfemoral cerebral angiography

No standardized protocol exists for femoral closure, and practice patterns vary widely

Purpose/objective of this study:

- Single-arm prospective cohort study to validate the efficacy and safety of a standardized femoral closure strategy for all diagnostic angiography, regardless of antiplatelet regimen

# Methods

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Single-arm, prospective study

Enrolling consecutive patients undergoing diagnostic transfemoral cerebral angiography by a single neurointerventional surgeon from March 2013 – March 2018

Closure protocol:

- 20 minutes of manual compression to the site of arterial access
- 2 hours of bedrest

Primary outcome: hematoma or oozing after manual compression

Patients were stratified by antiplatelet use

# Results

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525 total patients

- 263 (50.1%) were on patients taking antiplatelet medication
- 66 (12.6%) on dual antiplatelet regimens

Five patients (0.95% of all patients) met the primary outcome

- in all five cases, there was no further oozing or enlarging hematoma after an additional 10 minute compression period.

There were not significant differences in primary outcome in groups stratified by antiplatelet use

No instances of delayed hematoma, pseudoaneurysm or arteriovenous fistula

# Discussion

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In this 5-year prospective single-arm study, we sought to prospectively evaluate and validate the efficacy and safety of a uniform protocol of extrinsic compression followed by early ambulation 2 hours after closure in a modern neurointerventionalist practice with prevalent antiplatelet use

We report a 0.95% rate of oozing or hematoma formation in our study of 525 consecutive outpatient angiograms after 20 minutes of extrinsic manual compression.

- Three of these patients had palpable hematomas, which triggered additional compression; in the two other patients, there was ongoing oozing from the access site.

# Conclusion / Summary

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In a single-arm cohort study of 525 consecutive transfemoral angiograms with a standardized extrinsic compression protocol (20 minutes manual compression with ambulation after 2 hours), hemostasis was achieved without complication in >99% regardless of antiplatelet strategy.

This protocol is effective and safe for diagnostic transfemoral angiography regardless of a patient's antiplatelet use.