

Pain After Arteriovenous Fistula Creation

Presenting Author	Amy Ann Howk, MD, General Surgery Resident PGY3, Department of Surgery, University of Tennessee Medical Center Knoxville, Knoxville, Tennessee
Co-authors	Oscar Grandas, MD, General Surgery, UTMCK; Knoxville, TN; Eric Heidel, PhD, General Surgery, UTMCK; Knoxville, TN
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Abstract

Intro/Purpose:

Dialysis access creation is a common outpatient procedure that can be completed using general, regional, or local anesthetic techniques. There are few endorsed guidelines regarding opioid based pain control following fistula creation. The purpose of this study is to determine if utilization of regional anesthesia is associated with decreased use of narcotics post-operatively.

Materials/Methods:

We performed a prospective cohort study including all patients undergoing arteriovenous fistula creation with one vascular surgeon from August 2019 to February 2020. Patients were selected for regional versus general anesthesia. Selection was based upon medical comorbidities and discussion between vascular and anesthesia services. Patients selected for regional anesthesia underwent supraclavicular brachial plexus block with 30 cc 0.5% ropivacaine with or without 4 mg dexamethasone. Patients were seen in clinic follow up and completed a questionnaire regarding their post-operative opiate use and pain control.

Results:

In the study time period 52 patients underwent arteriovenous fistula creation and completed the follow up questionnaire. Forty-one patients received regional anesthesia. Fifty-one patients were discharged with a narcotic prescription; of which 75% had filled. There was a significant difference in post-operative opioid use between the two study groups. Patients that received regional block took on average 3.3 pills totaling 16.5 MME, while patients that received general anesthesia took on average 6.64 pills totaling 33.2 MME ($p=0.04$). There was no statistical significance in post-operative opiate use between patients when comparing pre-operative narcotic use, BMI, intra-operative local anesthesia administration, or the addition of over the counter pain medication.

Conclusion:

Morbidity and mortality related to opiate use continues to be a public health issue in America. This study demonstrates that regional anesthetic techniques in comparison to general anesthesia can result in a significant decrease in post-operative opiate consumption.

Learning Objectives

Implement a new strategy for opiate prescribing following arteriovenous fistula creation with the adjunct of intra-operative regional anesthesia.