Antithrombotic Agents May Be Safely Continued in Wide-Awake Carpal Tunnel Release

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Objectives

Many patients requiring carpal tunnel release (CTR) are on long-term antithrombotic agents (AT) for various indications. This presents a challenge for hand surgeons who must weigh the risk of bleeding if AT is continued against the risk of thrombosis if AT is temporarily stopped. The goal is this study is to evaluate the safety of continuing antithrombotics in the perioperative period in wide-awake, open CTR.

Methods

Wide-awake CTR's performed at a single institution from February 2013–April 2016 were retrospectively reviewed. All patients were anesthetized with 1% lidocaine with 1:100,000 epinephrine. A standard, open approach with a longitudinal palmar incision was used for all cases. Demographics, electromyography, tourniquet use, operative time, estimated blood loss (EBL), complications, and outcomes were evaluated. Patients who remained on AT agents through surgery were analyzed separately. Statistical analysis was performed using the Student's t-test and Fisher's exact test in SPSS (SPSS Inc., Chicago IL).

Table 1: Results

	AT (n = 93)	No AT (n = 205)	p-value
Demographics			
Male sex	90 (96.8%)	173 (84.4%)	.002
Mean age at surgery (years)	66.2	56.9	<.001
Tobacco use at time of surgery	16 (17.2%)	58 (28.3%)	.04
Diabetes	52 (55.9%)	47 (22.9%)	<.001
Median nerve motor latency, wrist (ms)	6.9	6.7	.44
Tourniquet use during surgery	32 (34.4%)	56 (27.3%)	.22
Outcomes			
Estimated blood loss (mL)	3.9	3.9	.87
Operative time (min)	22.0	23.0	.38
Complications			
Overall	5 (5.4%)	10 (4.9%)	>.99
Infection	4 (4.3%)	5 (2.4%)	.47
Oral antibiotics	4 (4.3%)	4 (2.0%)	.26
Intravenous antibiotics	0 (0%)	1 (0.5%)	>.99
Admission	0 (0%)	1 (0.5%)	>.99
Wound dehiscence	1 (1.1%)	3 (1.5%)	>.99
Delayed wound healing	1 (1.1%)	1 (0.5%)	.53
Hematoma	0 (0%)	0 (0%)	>.99
Other	0 (0%)	1 (0.5%)	>.99
Postoperative outcomes			
Lost to follow-up	16 (17.2%)	32 (15.6%)	>.99
Improvement of symptoms	75 (90.4%)	159 (93.0%)	.47
Mean follow-up (months)	3.4	3.3	
Symptoms improved (months)	3.4	3.4	
No improvement in symptoms (months)	2.6	2.2	

Results

304 CTR's were performed on 246 patients during the study period. Ninety-three patients (30.6%) were on AT agents. There were 69 patients on aspirin only, 7 on warfarin, 9 on clopidogrel, 1 on dabigatran, 3 on warfarin and aspirin, and 4 on dual antiplatelet therapy. AT patients were more likely to be older, male, diabetic, non-smokers.
Rates of post-operative complications were similar between groups (5.4% AT vs 4.9% non-AT, p=1.0). No hematomas or neurological complications were reported and no patients required re-operation during the study period. Overall, 91.8% of patients reported improvement symptoms post-operatively with a mean follow-up time of 3.3 months

Conclusions

Cessation of antithrombotic agents in the perioperative period is common in elective hand surgery. This study provides evidence that antithrombotic agents may be safely continued in wide-awake carpal tunnel release – with or without a tourniquet.