When Do Patients Return to Driving After Outpatient Foot and Ankle Surgery?

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Abstract

Counseling patients regarding when to return to driving following a foot and ankle procedure can be difficult, and 6 to 9 weeks is often recommended based on brake reaction times quoted in the literature. However, patients are ultimately responsible for the decision to drive. We aimed to determine when patients actually return to driving following outpatient foot and ankle surgery, what influences their decision, and whether any adverse events were experienced. Thirty-seven patients who underwent a right-sided foot and ankle procedure by a single orthopedic surgeon in an outpatient surgery center between September 2016 and December 2017 were recruited retrospectively for this study. Seventeen patients met inclusion criteria and participated in a telephone survey that inquired about their experiences and attitudes regarding return to driving following right-sided foot or ankle surgery. Of the patients surveyed, 100% drove a motor vehicle as their primary mode of transportation. Ten patients (59%) recalled having a discussion with the surgeon regarding when to resume driving, of which only 4 (23.5%) returned to driving at the suggested time they remembered. One patient (6%) returned to driving 2 weeks sooner, and 1 patient (6%) returned to driving 4 weeks later than recommended. No patient reported experiencing a driving-related adverse event. This study suggests that despite surgeons' recommendations, patients are returning to driving sooner than traditionally recommended. The surgeon's advice regarding when to return to driving may not be as influential as a patient's own self-assessment of their readiness to operate a vehicle after outpatient foot and ankle surgery.

Keywords

Foot and ankle surgery; Outpatient surgery; Safety; Return to driving

Abbreviation

SDM = shared decision making

Introduction

Foot and ankle surgery make up a significant portion of orthopedic procedures performed, and many of these procedures are now being done in the outpatient setting due to reduced costs and improved outcomes.[1,2] With outpatient procedures, patients can return home within 24 hours of their operation with better pain control, fewer complications, and higher satisfaction. One study by Huntley, et al,[2] shows that patients undergoing outpatient foot and ankle procedures are younger, more functionally independent, and less likely to have medical comorbidities than their inpatient counterparts. They found that the average age for an outpatient ankle procedure is 47.8 years, compared to 61.8 years for inpatient, suggesting a younger and healthier population that may wish to or feel more confident returning to driving sooner.[2] Moreover, this younger and more functional population may be eager to return to their daily routines that require the ability to drive.

Orthopedic surgeons are, thus, placed in a position of counseling a patient on when it will be safest to return to driving after a surgical procedure. In general, however, orthopedic surgeons are typically not well versed in local laws or their responsibilities regarding counseling patients on returning to driving.[3-5] This is likely attributed to the fact that there are no federal guidelines and variable state guidelines regarding returning to driving after a surgical procedure. Therefore, the recommendation on when to return to driving has been primarily based on brake times and periods of immobilization. Egol, et al, tested patients at 6, 9, and 12 weeks following surgical treatment of right ankle fractures and found that brake times returned to the normal baseline value at nine weeks postoperatively.[6] In a similar study, Egol, et al,[7] evaluated patients with major right lower extremity trauma and found that brake times returned to acceptable limits 6 weeks after the initiation of weight-bearing. Based on these studies, among others, the recommendation for safe return to driving following surgical treatment of lower extremity fractures is 6 to 9 weeks.[6-9]

While these recommendations serve to guide orthopedic surgeons and patients, it must be acknowledged that there are many factors apart from healing time that affect a person's ability to drive after lower extremity surgery, such as the side of the operation—right versus left, the specific procedure performed, postoperative immobilization in a splint or cast, completion of physical therapy, narcotic use, and patient motivation.[10] Return-to-driving decisions are made daily by orthopedic surgeons and, not infrequently, with some degree of patient-physician conflict when physician recommendations do not meet patient expectations. To our knowledge, few studies have evaluated the patient's decision-making process. Furthermore, no studies have reported whether or not a patient's return to driving was successful based on reported adverse events such as tickets or accidents. The purpose of this study is to determine when the patient actually returns to driving after outpatient foot and ankle surgery, which factors influence their decisions, and whether or not their first journey was successful. We hypothesize that patients return to drive after outpatient foot and ankle procedures sooner than recommended and that recommendations from their orthopedic surgeon play only a minor role in their decision-making process.

Methods

After obtaining Institutional Review Board approval, patients who underwent an elective right-sided foot or ankle procedure performed by a single fellowship-trained foot and ankle surgeon in an outpatient surgery center between September 2016 and December 2017 were retrospectively recruited for this study. Inclusion criteria included age between 18 and 70 years, no systemic disease, no neurologic condition, possession of a valid driver's license, and previous operative management of a right-sided foot or ankle condition within 1 year of the study start date and are at least 2 weeks post-operation. Thirty-seven patients were identified, of which 17 agreed to participate in the telephone survey after completion of verbal consent. Eighteen patients could not be reached, and 2 declined.

Most patients were placed in either a splint, boot, surgical shoe, or cast following the operation. Postoperative weight-bearing instructions varied according to the procedure performed. Generally, patients were non-weight-bearing for several weeks and utilized crutches as a mobility aide. All patients were verbally advised to avoid driving for a minimum of 6 to 8 weeks after surgery. This "return-to-driving policy" is in print as part of a surgery information packet that was also given to each patient. Ultimately, the senior surgeon determined each patient's fitness to return to driving on a case-by-case basis.

Patients were contacted 1 to 16 months postoperatively and were asked to participate in an anonymous telephone survey that included the following questions: (1) Is driving your primary mode of transportation?; (2) Did you have a discussion with your surgeon regarding when you should return to driving a car?; (3) If you did have a discussion with your surgeon, what was your surgeon's recommended time frame to return to driving?; (4) Prior to returning to driving a car did you seek any advice from your insurance company or legal counseling regarding when it would be safe to drive?, (5) When did you actually return to driving a car after your procedure?; (6) When you returned to driving a car, did you experience any adverse events such as tickets or accidents?; (7) When you returned to driving a car were you still using narcotic pain medications? If 'yes', was this during the day, night, or both?; (8) When you returned to driving a car, how long was your first journey?; and (9) When you returned to driving a car, were you comfortable driving?

Exclusion criteria included the following: (1) any patients who did not drive a car preoperatively, (2) any patients whom experienced a postoperative complication requiring reoperation or hospitalization within 3 months of their initial procedure, and (3) any patients who underwent any other operative procedure within 3 months of their initial procedure.

Results

Of the 17 patients who responded to this survey, 100% drove a motor vehicle as their primary mode of transportation. Ten patients (59%) remembered having a discussion with the surgeon regarding return to drive timing. Of these 10 patients, 6 (35%) could recall the specific time frame recommended to them, of which only 4 (24%) returned to driving at the suggested time they remembered, ranging from 2 to 14 weeks. One patient (6%) returned to driving 2 weeks sooner than recommended, and 1 patient (6%) returned to driving 4 weeks later than recommended. One patient (6%) was recommended never to return to drive.

Nine patients (53%) could not recall the specific time frame to return to drive suggested by the surgeon. Among these 9 patients, the average return to drive time was 8.8 weeks. One patient (6%) returned to drive in 1 week, 4 patients (24%) returned to drive in 6 to 8 weeks, and the remaining 4 (24%) returned to drive in 10 to 14 weeks.

No patient reported experiencing an adverse event during their first time driving after surgery. One patient (6%) was still using narcotics at the time of their first drive. Eight patients recalled their first drive length to be less than 15 minutes, and 8 patients reported their first drive time between 15 to 30 minutes. One patient could not recall their first drive length.

Twelve patients (71%) reported wearing some form of immobilization during their first drive, but only 4 reported immobilization to the right side. At the time of first drive, 9 patients (53%) reported still using an assistive device daily. All 17 patients reported feeling comfortable with the decision to drive.

Discussion

This study demonstrated that despite a majority of patients (59%) undergoing foot and ankle surgery recall having a discussion with their surgeon regarding when to return to driving, only 35% of these patients recalled the specific time frame being given. Furthermore, the recommendation was not always followed, with some patients returning to driving earlier and some patients returning later than recommended. This suggests that a surgeon's recommendation does not heavily influence a patient's decision to return to driving.

Interestingly, of those patients who did not recall the surgeon recommending a specific time frame, they returned to driving on average 8.8 weeks after their procedure. This falls within the recommendations of 6-9 weeks.[6,7] The consistency in return to drive time with these patients and the literature suggests that patients are in tune with their driving capabilities and personal situations. This information provides valuable insight into the more prominent role patients should be taking in the shared decision-making process.

The concept of shared decision making (SDM) is gaining emphasis in the current health care landscape.[11,12] In short, SDM is the process of involving the patient in clinical decision-making. It is linked to improved patient satisfaction, enhanced ability to recall discharge instructions, more positive outcomes, and reduced costs.[11-14] In our study, several observations were noted that point towards the potential need for incorporation of SDM in the discussion of when to return to drive. First, only 35% of patients remembered having a conversation with the surgeon about when to return to drive. This finding is in line with previous literature demonstrating that 40% to 80% of the medical information provided by health care practitioners may be forgotten by patients shortly after an outpatient encounter.[15] This points to the possibility that perhaps a conversation alone is not sufficient in educating the patient, and depending on patient education level, media and other educational materials could be utilized in that aspect of the SDM process.[16,17] Second, it was observed that 100% of patients reported feeling comfortable when they returned to drive, and there were no adverse outcomes reported. This suggests that a patient's decision to drive is based heavily on their own self-assessment. The patients' self-awareness should also be taken into account in the SDM process.

One major limitation to this study is the retrospective nature of this study and the timing following surgery for the patients. The patients in this study were contacted up to 16 months after their operation, which can greatly affect the accuracy of the information reported by the patients. This factor greatly predisposes the patients to recall bias. Another limitation to this study is that there was no attempt to differentiate between automatic and manual transmissions. This limitation could be a factor in patients with left-sided procedures and can misrepresent the data. A third limitation to this study is the use of a telephone survey, which limits response rate and can be affected by patient willingness to answer questions over the phone. Although calls were made with a business number associated with the physician's office and standard protocols made it very clear that surveys were anonymous, patient willingness to participate in the survey was seemingly low. In that light, another limitation of this study includes the number of patients in this study who responded out of the identified eligible patients. Of the patients identified as eligible to participate in this study, only 46% of patients were willing to participate.

Conclusion

This study suggests that while most patients, on average, followed the suggested 6- to 9-week waiting period before driving, some patients are returning to driving following outpatient foot and ankle procedures sooner than recommended. Importantly, all patients' that returned to driving reported feeling comfortable with their decision to drive and no patient experienced an adverse outcome. The wide range of return-to-drive time frames seen in this study suggests that surgeon advice regarding return to driving may not be as influential as a patients' self-assessment of their ability to operate a vehicle following their outpatient procedure. Additional studies would be helpful in further evaluating the individual factors that influence a patients' decision to return to drive and the influential role the physician has in the SDM process.

Conflict of Interest

None of the authors identify a conflict of interest.

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