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# Abstracts

## British Pain Society Annual Scientific Meeting



The following poster abstracts were to have been presented during the postponed British Pain Society Annual Scientific Meeting 31st March-2nd April 2020 event.

## 5 YEAR OUTCOMES OF CARPAL Rx THERAPY TO TREAT CARPAL TUNNEL SYNDROME

**Category:** Interventional Pain Management

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### Background

As consumer electronic technology expands around the world, so does the pain of Carpal tunnel syndrome (CTS). CTS has been called the “scourge of modern living” and is on a dramatic rise. Carpal tunnel release surgery has been the gold standard for treating this painful condition. But its expense and effectiveness fall short of being a uni- versal or long-term solution. In contrast, therapeutic massage, particularly employing myofascial release, is effective, inexpensive, and long-lasting. Historically, manual therapy was required to perform it on patients with CTS. But the Carpal Rx device re-creates manual myofascial release massage electro-mechanically. This non-surgical approach has been documented as being effective for at least 2 years after initial treatment. But its effects beyond 2 years have been anecdotal. Long-term commitments to Carpal Rx use require validation of its therapeutic value beyond 2 years of initial application.

### Aims

This research aims to document the therapeutic value of Carpal Rx therapy from 1 to 5 years after initial use for 2 to 4 months. It prospectively compares Carpal Rx use to endoscopic carpal tunnel release surgery to treat CTS.

### Methods

This prospective survey spanned 61 months. It recruited 177 patients via telephone interviews. All patients were followed telephonically to assess CTS symptoms. Patients were divided into 3 groups. Group A (N=64) underwent unilateral endoscopic carpal tunnel release surgery. Their post-operative therapy consisted of standard of care hand rehabilitation (including ROM and strengthening exercises). Each rehabilitation regimen varied but was completed by 7 months post-op. Group B (N=61) did not have surgery, but used the Carpal Rx device instead. Therapy was applied once or twice daily for 30 to 60 days. Group C (N=52) was identical to group B, but patients used the device for 60 to 120 days. All patients were followed monthly for at least 36 months to a maximum of 61 months. All data were gathered telephonically using modifications of the VAS, DASH and MHQ instruments. Patient Satisfaction and compliance was assessed monthly using a patient diary.

### Results

At 36 months, 44% of Group A patients scored in the first quartile of VAS, DASH and MHQ. 61% reported 1-5 on the Patient Satisfaction Scale (“somewhat dissatisfied”). In contrast, 87% of group B patients scored in the second or third quartile of VAS, DASH and MHQ. 88% reported 6-10 on the Patient Satisfaction Scale (“somewhat satisfied”). 93% of Group C patients scored in the second or third quartile of VAS, DASH and MHQ. 91% reported 6-10 on the Patient Satisfaction Scale (“somewhat satisfied”). At 50 months, all group scores decreased for the VAS, DASH and MHQ. Group A decreased to 37%. Groups B and Group C decreased to 71% and 73%, respectively. The scores did not appreciably change at 60 months in any group. Patient compliance for group B was 98% (completed Diary entries). Group A and group C patients yielded 84% and 77% compliance, respectively.

### Conclusion

Carpal tunnel syndrome patients who used Carpal Rx therapy instead of having carpal tunnel release surgery had less than half of the symptomatic disturbances at 36-60 months. Patients who used the Carpal Rx for 60-120 days had over two-fold fewer symptomatic disturbances than surgical patients 3-5 years later. There was no significant long-term difference between initially using the Carpal Rx for 60 or 120 days. It is concluded that the 5-year outcome for Carpal Rx therapy patients is more than two-fold improved when compared to surgery patients.