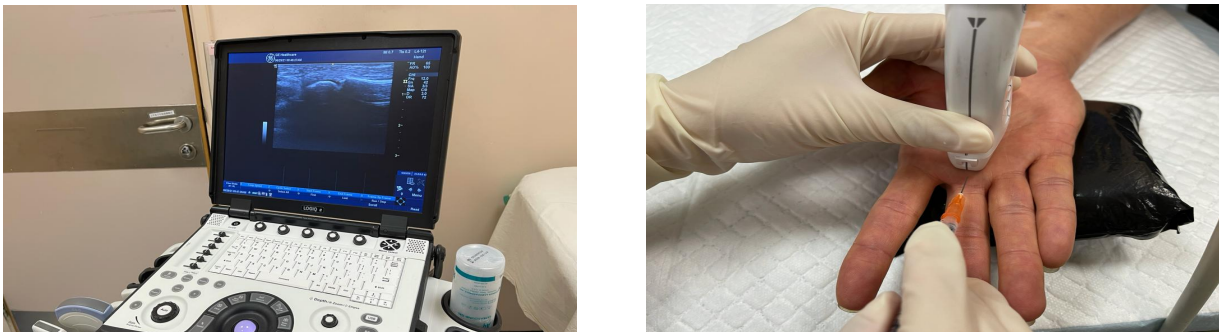


Evaluation of Ultrasound-guided Corticosteroid Injection Outcomes for Trigger Finger in Family Medicine Musculoskeletal Clinic

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INTRODUCTION

Trigger finger is a common musculoskeletal problem in primary care. Corticosteroid injection has been the first-line treatment for trigger finger, with success rates of 67-90% after the first injection. Ultrasound (USG) guidance can ensure safer and more accurate injection procedures. The Prince of Wales hospital Family Medicine (FM) musculoskeletal clinic has been providing USG guided soft tissue injection since late 2019. We aim to review USG-guided trigger finger injection outcomes by comparing finger grading and symptom scores before and after injection.



METHOD

All trigger finger cases with USG-guided corticosteroid injection performed in the period of January to September 2020 were recruited retrospectively and their case notes were reviewed until 31st March, 2021. Data such as Quinell grading, Numerical Pain Rating Score (NPRS), and Quick Disabilities of Arms, Shoulder & Hands (QuickDASH) score on the day of injection and at subsequent follow-up visits was collected for analysis.

RESULTS

A total of 235 fingers among 176 patients received USG-guided injection. The mean follow-up interval after injection was 42.2±30.0 days. Table 1 shows the baseline characteristics.

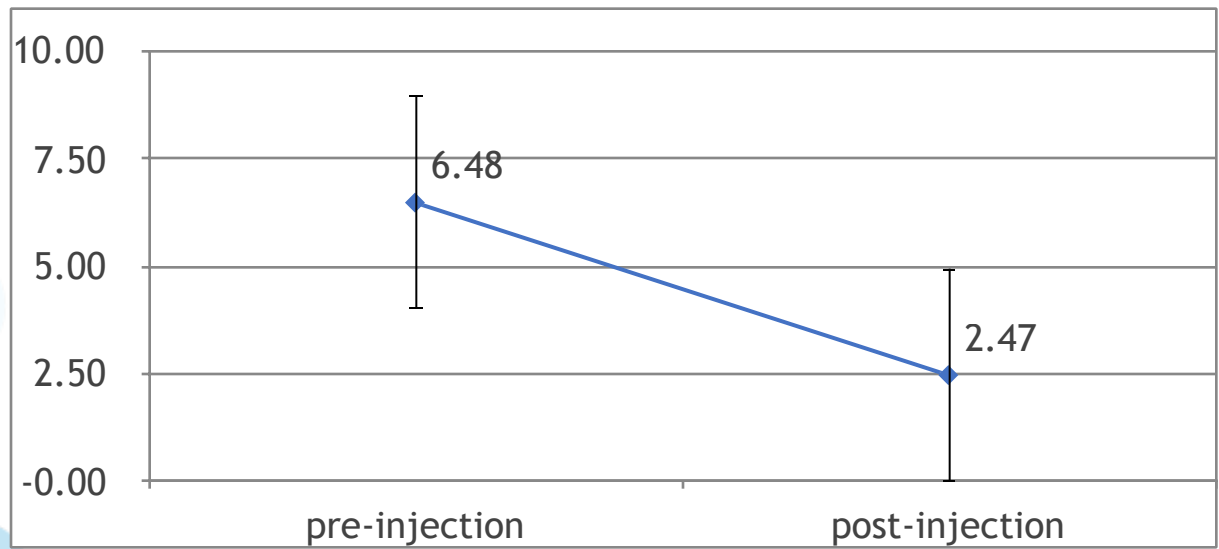
Quinnell Grading

Before injection, the majority of trigger fingers were grade II (N=165, 70.2%) and grade III (N=68, 28.9%). After injection, 151 (64.2%) of the fingers became grade I and below. The improvement of grading was significant (P<.001). (Figure 1)

Numerical Pain Rating Score (NPRS)

The pre-injection mean was 6.48±2.29 and the post-injection mean was 2.47±2.51, with significant improvement (P<.001). (Figure 2)

Figure 2. NPRS pre- and post-injection



There were 13 (7.4%) cases with repeated injection of the same finger, with a mean interval of 136.7±51.5 days. There were 22 (12.5%) cases referred to physiotherapy, and 3 (1.7%) cases referred to orthopaedics. No adverse effects from injections were reported.

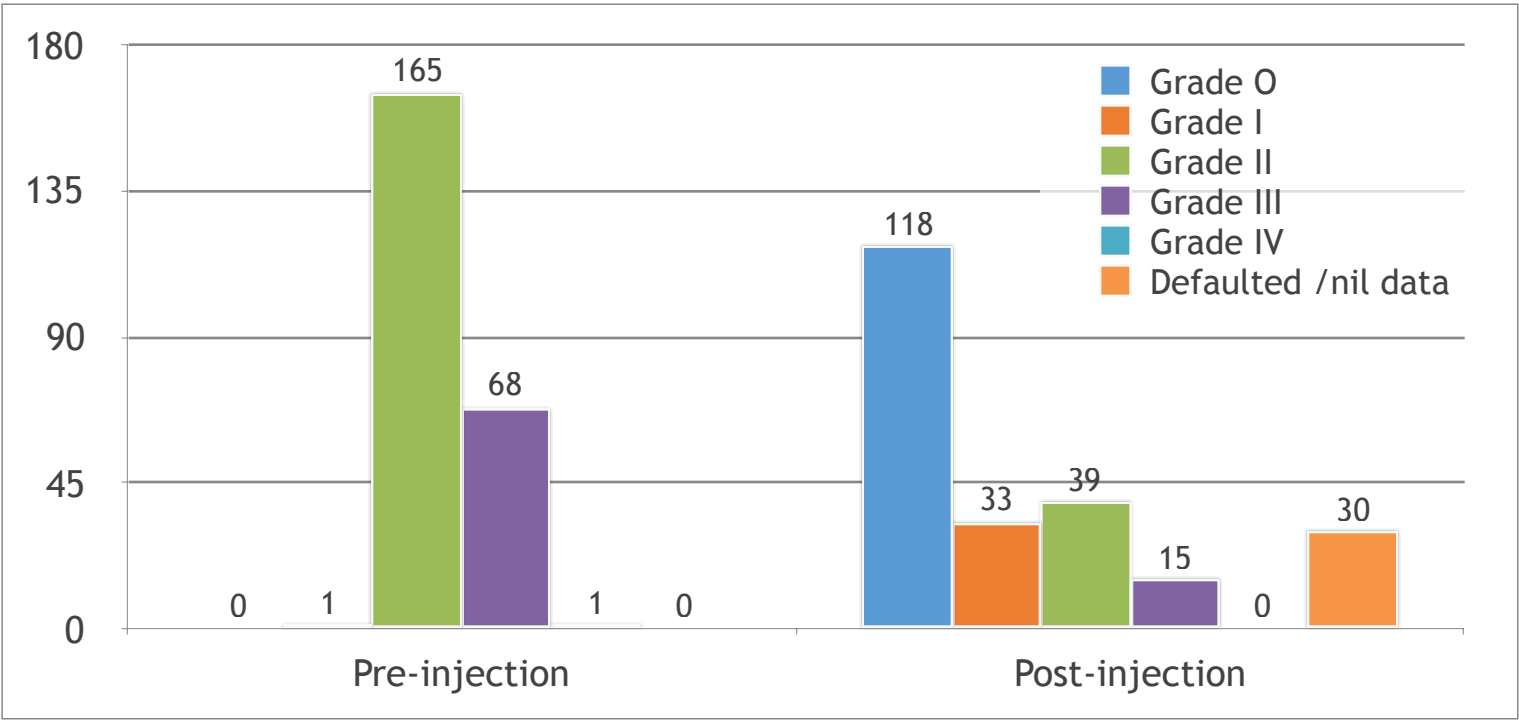
CONCLUSION

This study shows that USG-guided trigger finger corticosteroid injections in the primary care setting results in good clinical and functional outcomes.

Table 1. Baseline characteristics

Patients		Total (N=176)
Gender	Male	70 (39.8%)
	Female	106 (60.2%)
Age (years)		65.4 ± 9.3
Fingers		Total (N=235)
Digit	Thumb	49 (20.9%)
	Index finger	31 (13.2%)
	Middle finger	110 (46.8%)
	Ring finger	45 (19.1)
	Little finger	0 (0.0%)
Quinnell grading (pre-injection)	I	1 (0.4%)
	II	165 (70.2%)
	III	68 (28.9%)
	IV	1 (0.4%)

Figure 1. Quinnell grading pre- and post-injection



QuickDASH score

The pre-injection mean was 38.4±22.1 and the post-injection mean was 24.6±19.0, also with significant improvement (P<.001). (Figure 3)

Figure 3. QuickDASH scores pre- and post-injection

