



TITLE

Effective Adolescent Hand CRPS Type I Treatment Using Ketamine, Gabapentin, and Supraclavicular Nerve Block Catheter

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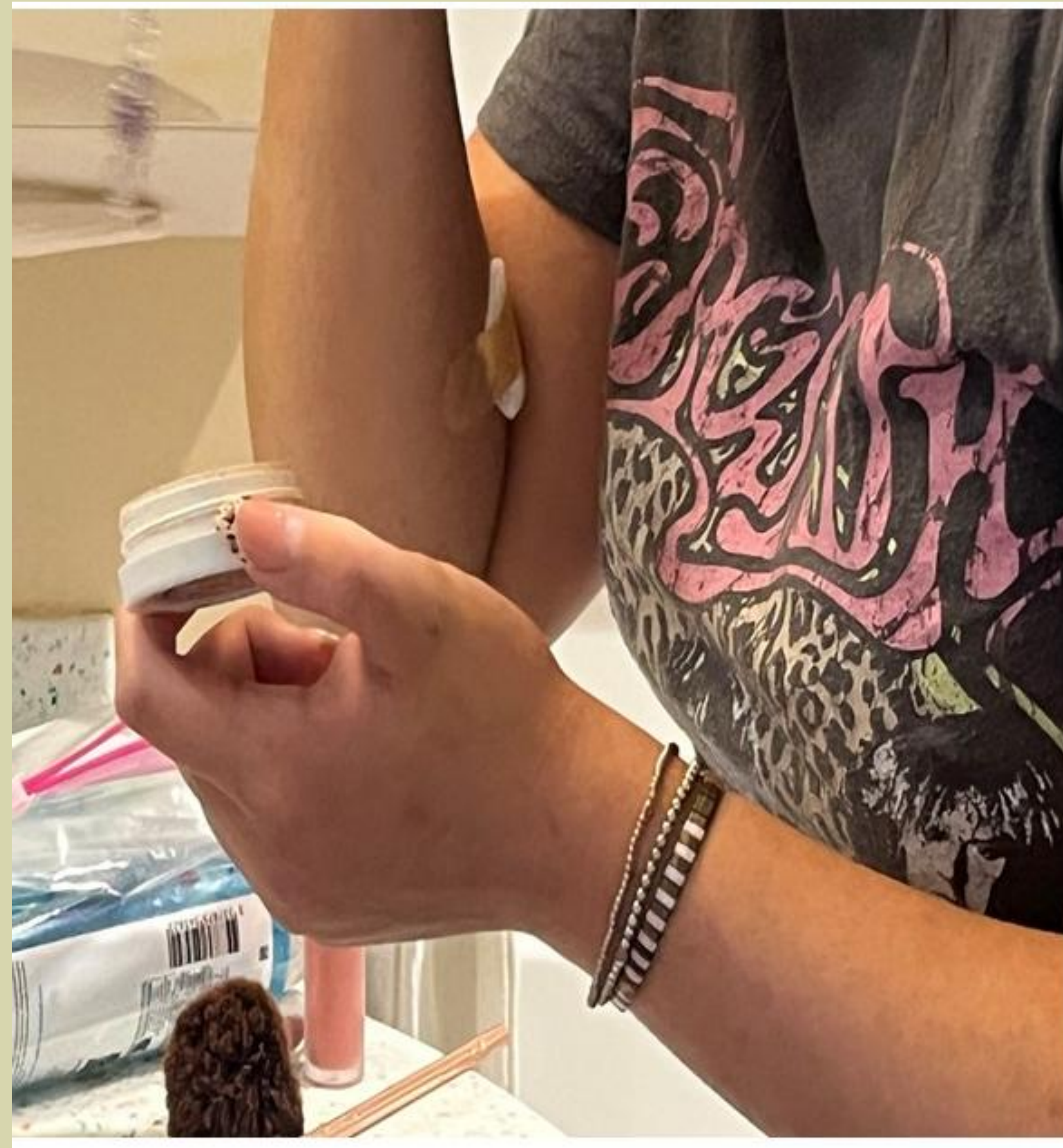
BACKGROUND

- Complex Regional Pain Syndrome Type I in adolescents can lead to severe chronic pain, central sensitization, and functional disability.
- Standard therapy includes rehabilitation and pharmacologic management, but a subset remains refractory.
- Multimodal, central and peripheral modulation may accelerate recovery.

METHODS

- Single patient case report. Informed consent obtained.
- 15 year old right hand dominant female developed CRPS Type I three months after metacarpal fracture fixation.
- Failed six weeks of:
 - NSAIDs
 - Acetaminophen
 - Occupational therapy
 - Desensitization therapy
- Escalated inpatient multimodal therapy:
- Central modulation
 - Subanesthetic ketamine infusion 7 mg per hour
 - Gabapentin titrated to 400 mg three times daily
- Peripheral modulation
 - Ultrasound guided supraclavicular continuous nerve catheter
 - Ropivacaine 0.5 percent 20 mL bolus
 - Continuous infusion 0.2 percent at 7 mL per hour
 - Catheter tunneled and maintained 9 days including ambulatory phase

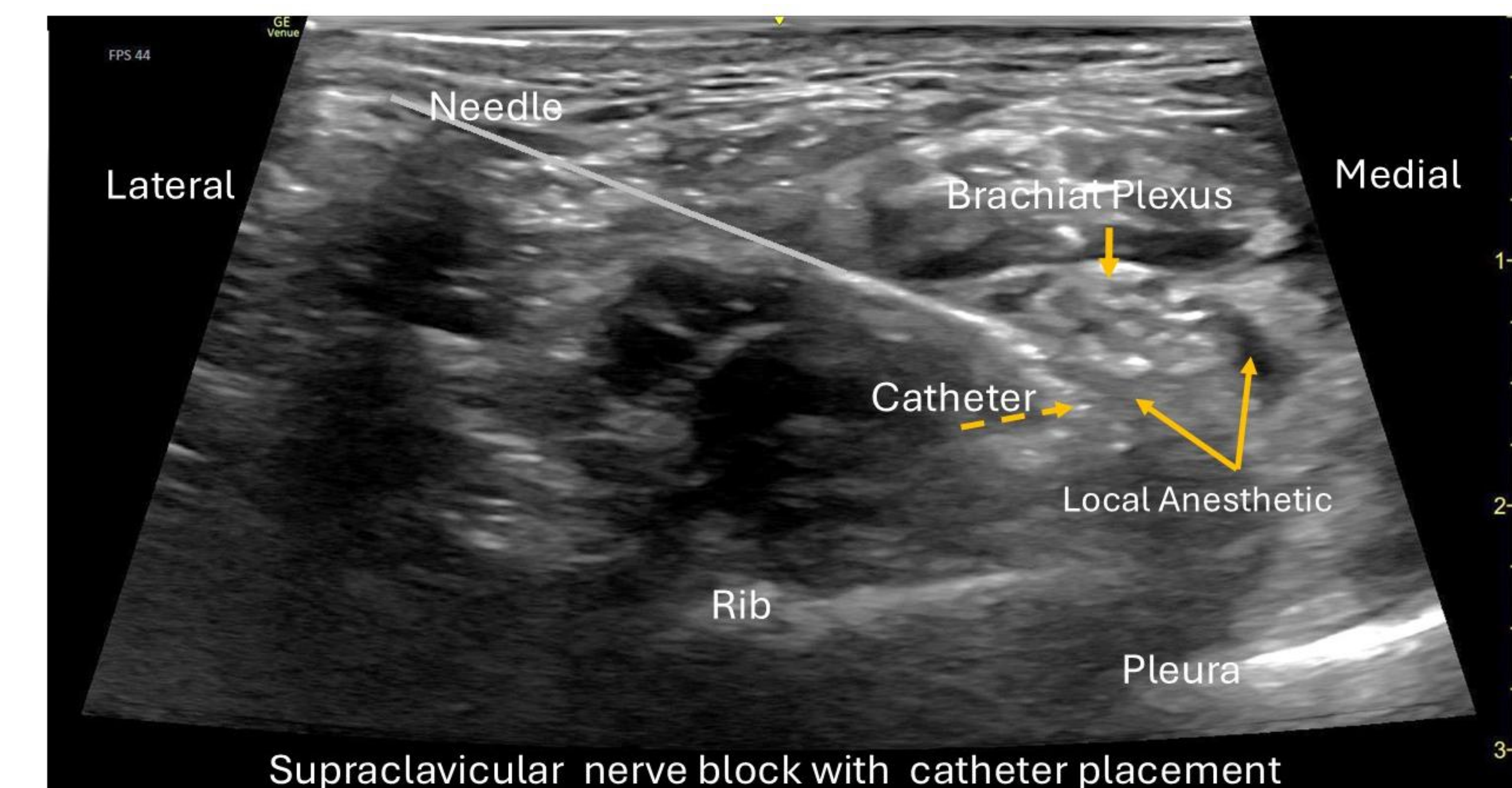
Seven to Zero: Rapid Reversal of Refractory Adolescent CRPS.



The patient was able to perform left hand grasp and fine motor movements on day 5 while the supraclavicular catheter was in situ.

RESULTS

Timeline	Pain Score	Functional Milestone
Admission	7	Severe allodynia, unable to make fist
24 hours post catheter	2	Improved perfusion, reduced hypersensitivity
48 HOURS	0	Pain free at rest
Day 4	0	Active physiotherapy initiated
Day 5	0	Discharged home with ambulatory infusion
Day 9	0	Catheter removed without complication
2 weeks	0	Full range of motion
6 weeks	0	Returned to sports
11 weeks	0	Sustained remission



Authors

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