

Introduction

- Cryoanalgesia has been a long accepted therapy for providing analgesia, but has fallen out of favor, due to radio frequency ablation (RFA), as well as the inflammatory effects associated with exposing peripheral nerves to low temperatures. Within a certain cold temperature range, peripheral nerve function is interrupted and recovers, without neuroma formation.
- lovera introduce.d percutaneous cryoneurolysis with less suggested inflammation than cryoablation. [2] This causes temporary prolonged relief without permanent nerve injury. [3] It is a clinic based procedure performed under high resolution ultrasound (US) guidance. By identifying peripheral sensory nerve branches, thought to be responsible for transmitting pain in the anatomical area of interest, and avoiding motor or mixed nerves, the nerve can be safely targeted with cryoneruolysis.
- We report the case of a patient who underwent multiple interventions for refractory inguinal neuralgia with different peripheral nerve blocks, peripheral nerve stimulation (PNS), but was successfully treated with cryoneurolysis

Case Presentation

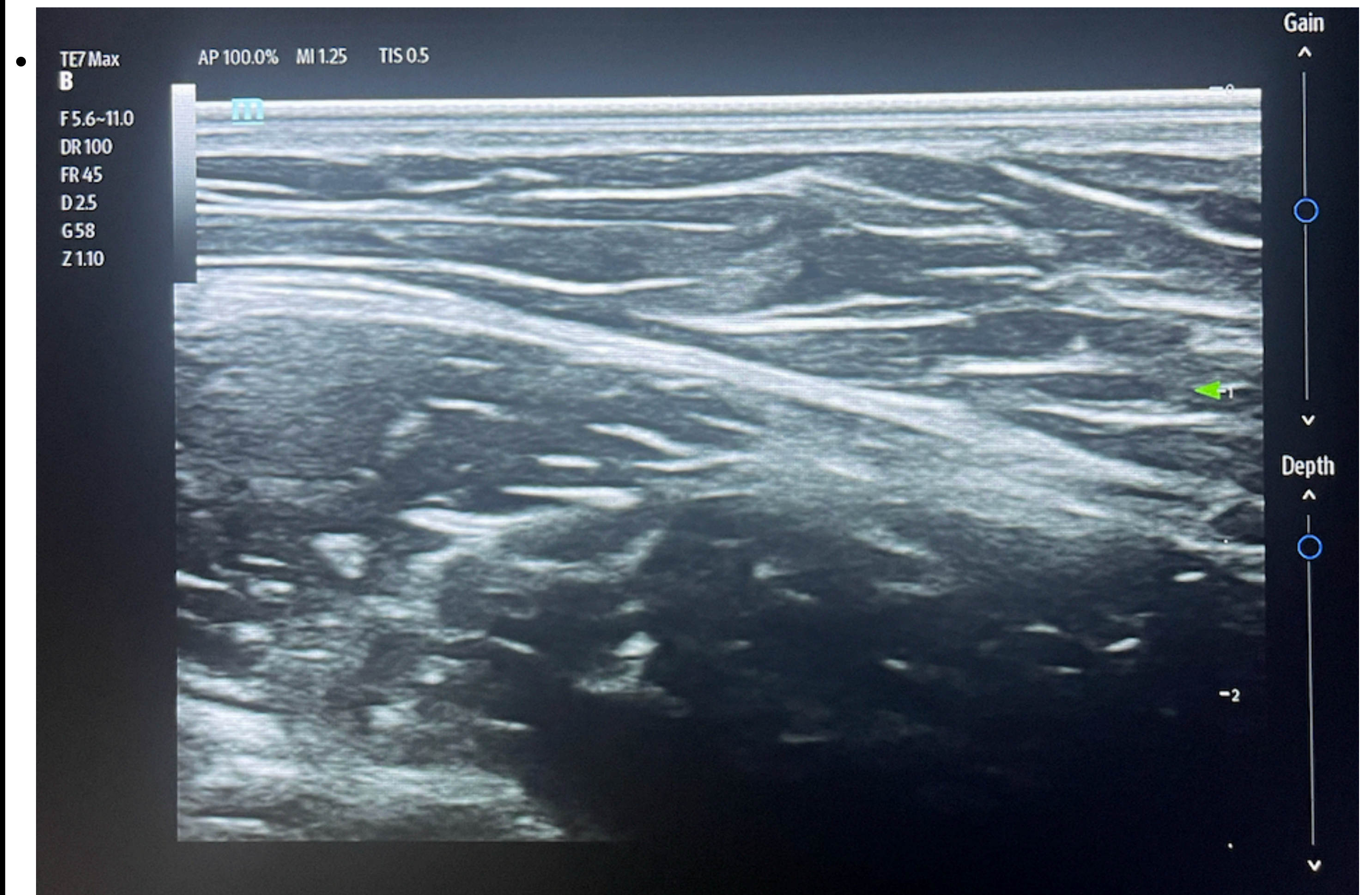
- A 15-year-old female with no past medical history presented for severe left sided debilitating inguinal pain. She was wheelchair bound for most of the day and was referred to our pain clinic after an extensive workup and multiple interventions. She had trialed peripheral nerve stimulation (PNS) and Gabapentin with minimal relief. She then had a diagnostic ilioinguinal block with steroids, that alleviated her pain, but did not last. With PNS, her VAS pain score was 8-9/10, but she was able to use her extremity and had less limitations. She had used wheelchair intermittently.
- We offered Post cryoneurolysis her pain has been well controlled and has not used any assistive devices since procedure. She has been weaned off Gabapentin.

Discussion

- In this case we highlight the successful use of cryoneurolysis in an adolescent patient with refractory inguinal neuralgia. The patient has localized area in her left thigh that was tender to palpation. Using ultrasound guidance, 2 terminal branches of the ilioinguinal nerve were identified as being responsible for her pain. After performing a ilioinguinal nerve block to provide analgesia to the dermatomal area of interest, cryoanalgeis with the lovea probe was performed under US guidance. The patient tolerated the procedure well under conscious sedation using fentanyl and midazolam. She was able to move her left lower extremity without any restriction and walk with minimal discomfort. Her VAS score was 1/10. The patient was taking gabapentin prior to the procedure and was asked to continue taking it for a month to avoid any pain caused by nerve irritation from the cryoneurloisis itself. She was successfully weaned off gabapentin and has been pain free.



- Figure 1: ilioimguinal nerve block to provide analgesia during cryotherapy.



- Figure 2. Cryotherapy of the superficial inguinal nerve branches.

Conclusion

- Cryoneurolysis can safely provide effective analgesia in adolescent patients with refractory pain.

References

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