Knee dystonia following trauma resolved with lumbar sympathetc blockade: A Case Report

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Case Description

- 51-year-old active female presented with four months of right knee pain and stiffness after falling from a scooter
- Her pain started immediately and somewhat improved, but the right knee had limited range of motion, refractory to physical therapy and dynamic splinting
- Evaluated in orthopaedic clinic one month after injury and magnetic resonance imaging demonstrated a grade II medial collateral ligament sprain
- Diagnostic arthroscopy showed a plica and she had full (0-140^{o}) range of motion (ROM) under anesthesia, but no structural explanation for her limited ROM
- She was referred to interventional spine and rehabilitation clinic three months later

Physical Exam

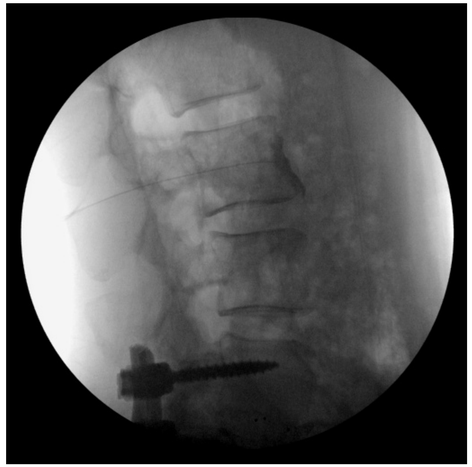
- There was questionable hypersensitivity to light touch and moderate warmth and swelling around the knee
- Limited right knee extension (20^{o}) and flexion (50^{o})

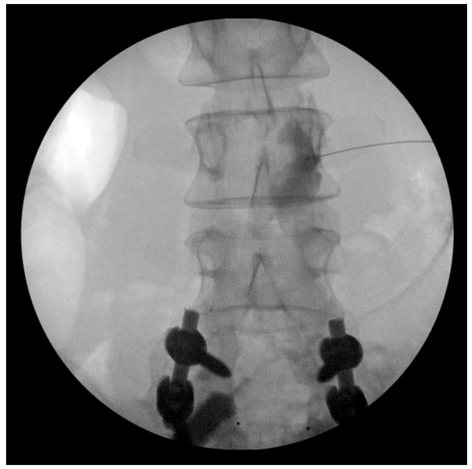
Treatment

- Diagnostic sympathetic chain blockade: Needle placement was confirmed at the L3 level using live fluoroscopy and contrast outlining the sympathetic chain
- 8cc of 0.25% bupivacaine was injected
- Successful blockade occurred when distal limb warmed >2^{o} compared to pre-procedure and contralateral side

Follow-Up

- She achieved immediate pain-free ROM after a successful sympathetic blockade
- The procedure was repeated two weeks later for slight regression, and resulted in persistent full pain-free ROM





Discussion

- Dystonia can result in significant pain and limited ROM, and occurs in approximately 25% of chronic regional pain syndrome (CRPS) cases[1]
- When appropriate, sympathetic chain blockade offers diagnostic and therapeutic value
- Other causes of knee stiffness after trauma such as meniscal tears, ligamentous injury, hemarthrosis, fractures, chondral defects, and pain should be ruled out first[2]
- In cases of knee stiffness refractory to conservative interventions, especially in the setting of trauma that are not clearly due to one of the above, CRPS and sympathetic chain blockade could be considered

References

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