

Non-Surgical Management of a Saphenous Neuroma as a Complication of ACL Reconstruction Surgery

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Introduction

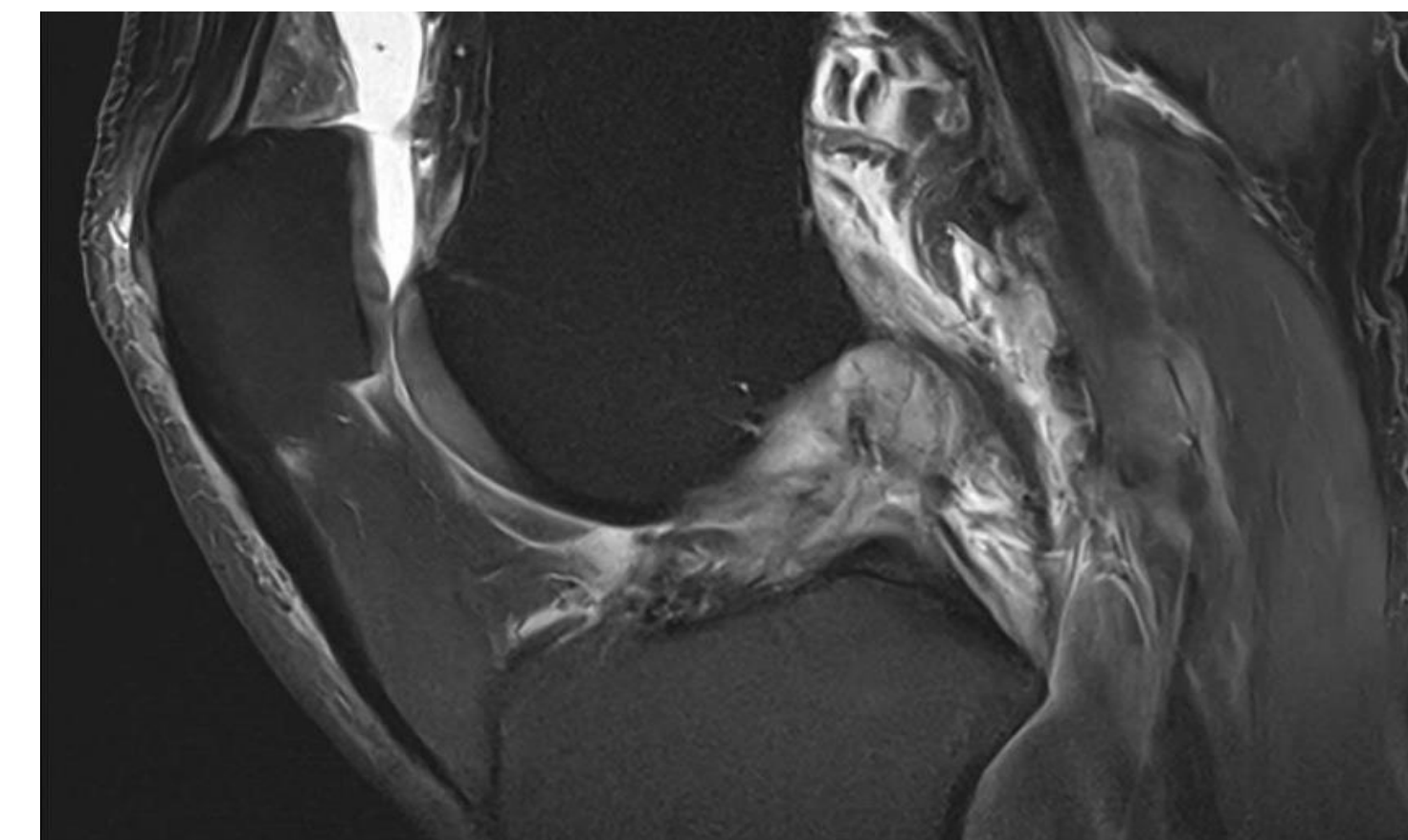
Iatrogenic injury of the infrapatellar branch of the saphenous nerve (IPBSN) is a common cause of neuropathic pain following ACL reconstruction, with incidence of IPBSN injury ranging from 14.9-77% depending on surgical technique and graft type¹. Damage may occur during hamstring or bone-patellar tendon-bone (BTB) autograft harvesting, with direct transection, stretching, or compression during the surgical approach comprising the most common mechanisms of injury². More than 40% of patients report continued paresthesias at 1-year follow-up¹.

Patient

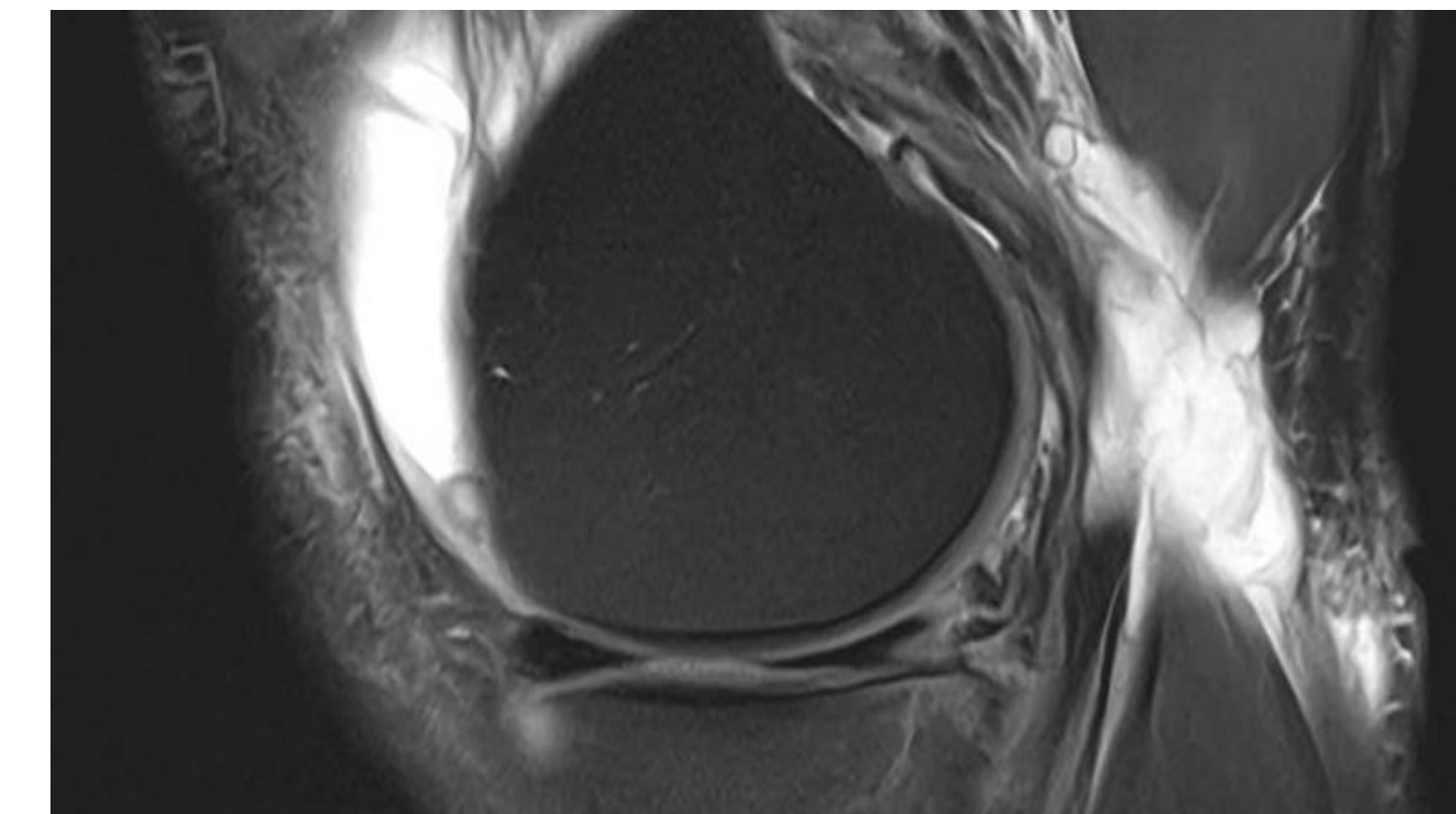
- 45y Male
- Initial date of injury: April 2025, while playing soccer, heard a “pop” during a cutting motion
- MRI 04/14/25: “Complete tear of the ACL, deep MCL meniscomfemoral ligament, and femoral attachment of the MPFL. Partial tear of the popliteofibular ligament. Complex tear of the medial meniscus posterior horn and root.”
- Underwent left knee arthroscopic ACL reconstruction using quadriceps autograft and left partial medial meniscectomy 05/12/25.
- No pain and progressing as expected on follow ups 06/2/25 and 07/17/25, noted to have infrapatellar paresthesias at 5-mo follow up 10/16/25.
- Underwent 3-rounds of IPBSN hydrodissection
 - 10/29/25: 8mL Lidocaine 1%; <1d of 80-90% improvement
 - 11/5/25: 8mL Lidocaine 1%, Triamcinolone 20mg, Ketorolac 5mg; 3mo of 80% relief
 - 02/23/26: 8mL Lidocaine 1%, 20mg Triamcinolone, 20-40% further relief

Imaging

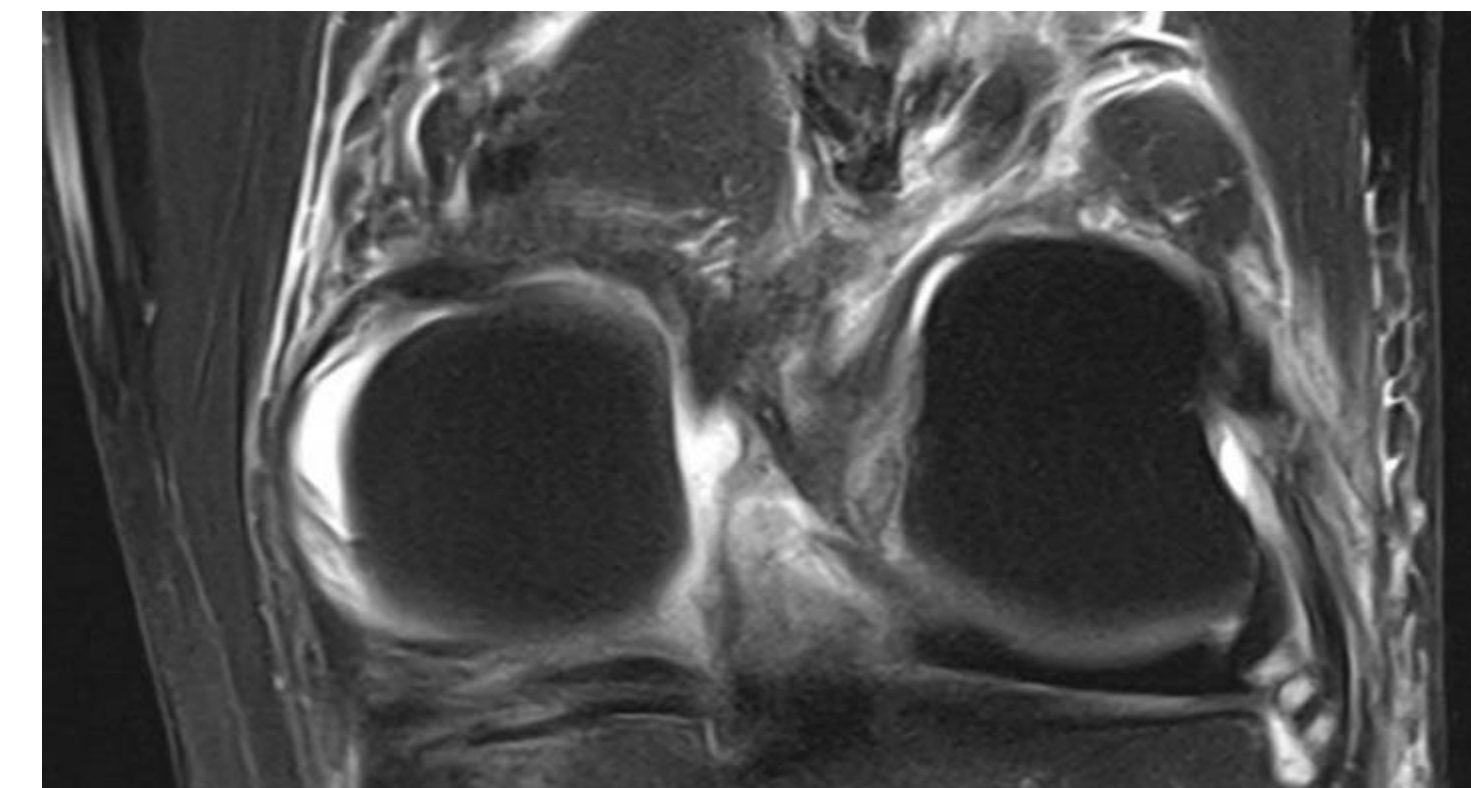
ACL Tear – Sagittal



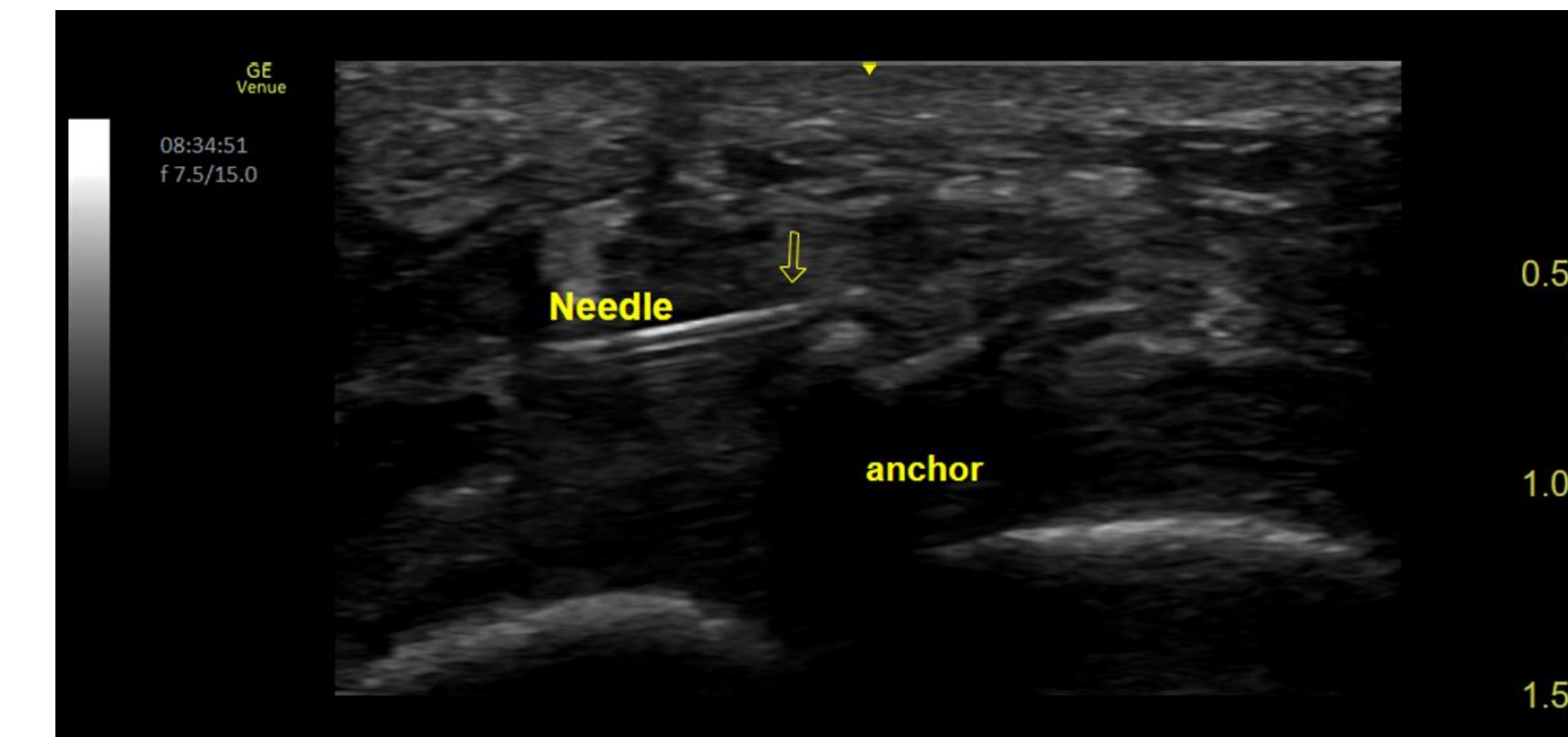
Medial Meniscus Tear – Sagittal



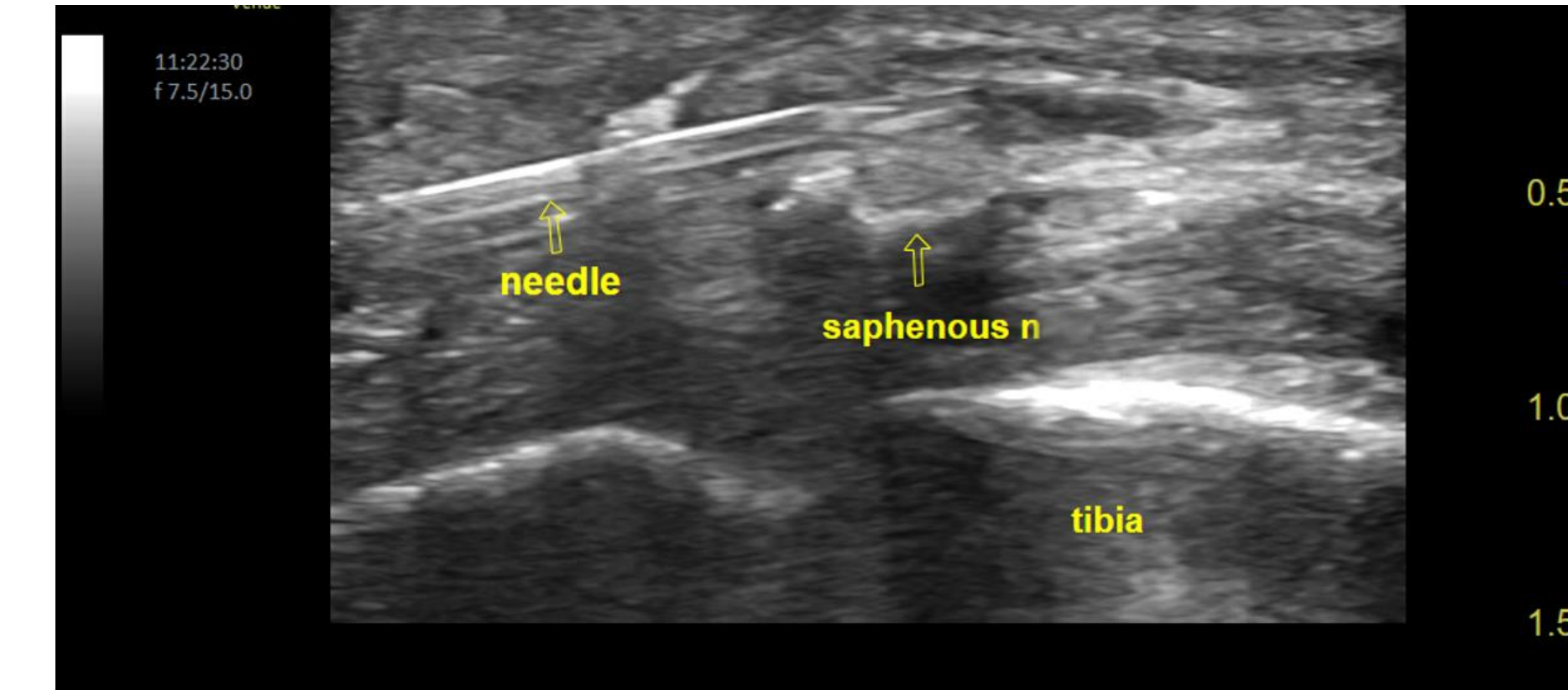
ACL & Med. Meniscus Tear – Coronal



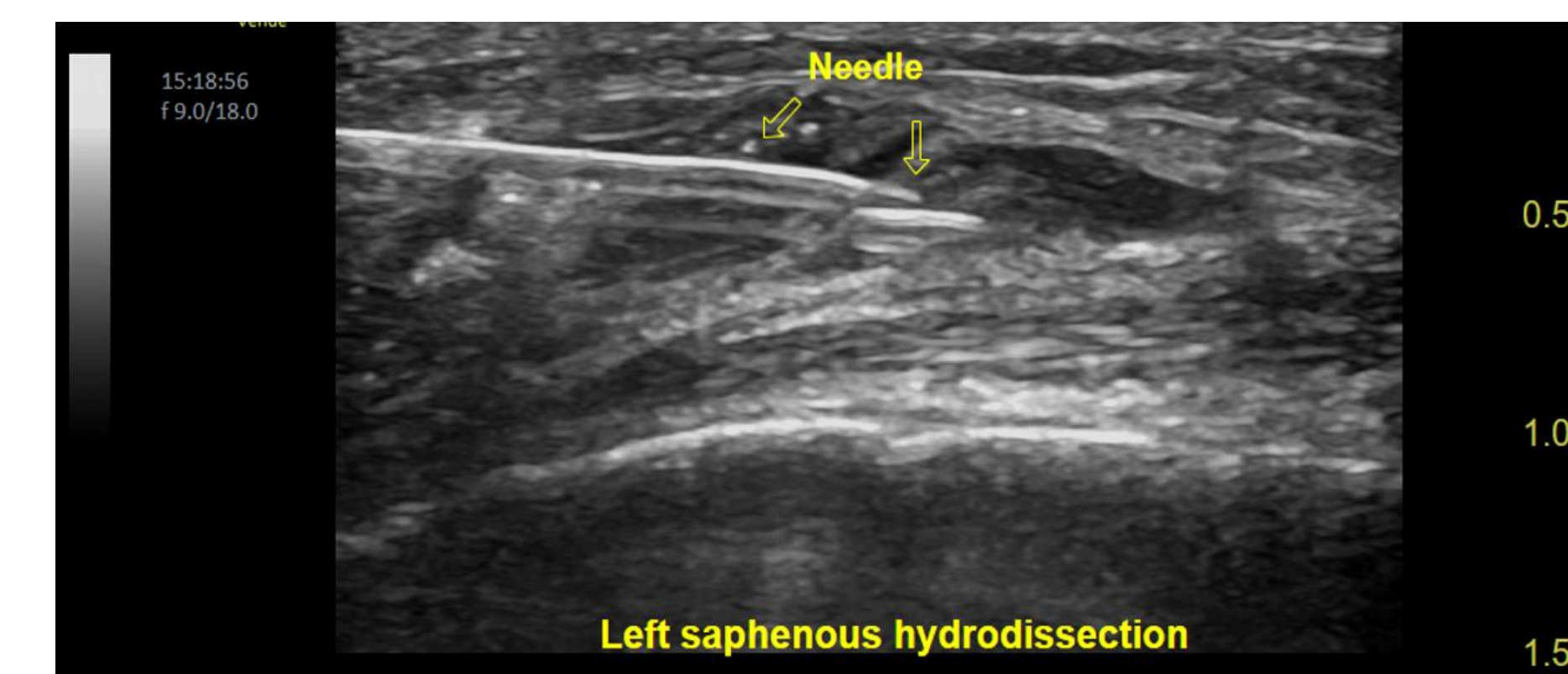
Hydrodissection #1



Hydrodissection #2



Hydrodissection #3



Discussion

IPBSN injury is a common cause of neuropathic pain following ACL reconstruction surgery. While sensory abnormalities tend to improve with time, they rarely resolve completely and can substantially contribute to postoperative morbidity³. Nerve hydrodissection under ultrasound guidance is a novel approach to management of these nerve injuries and may provide a simple and effective treatment to chronic neuropathic pain as a result of IPBSN injury.

Literature Cited

1. Cohen SB, Flato R, Wascher J, Watson R, Salminen M, O'Brien D, Tjoumakaris F, Ciccotti M. Incidence and Characterization of Hypoesthesia in the Distribution of the Infrapatellar Branch of the Saphenous Nerve after Anterior Cruciate Ligament Reconstruction: A Prospective Study of Patient-Reported Numbness. J Knee Surg. 2018 Jul;31(6):585-590. doi: 10.1055/s-0037-1605559. Epub 2017 Aug 25. PMID: 28841726.
2. Szwedowski D, Ambroży J, Grabowski R, Dallo I, Mobasheri A. Diagnosis and treatment of the most common neuropathies following knee injuries and reconstructive surgery - A narrative review. Heliyon. 2021 Sep 22;7(9):e08032. doi: 10.1016/j.heliyon.2021.e08032. PMID: 34611563; PMCID: PMC8477214.
3. Haviv B, Bronak S, Rath E, Yassin M. Nerve injury during anterior cruciate ligament reconstruction: A comparison between patellar and hamstring tendon grafts harvest. Knee. 2017 Jun;24(3):564-569. doi: 10.1016/j.knee.2017.03.009. Epub 2017 Apr 9. PMID: 28404457.