

# A "Hail Mary" Use of Sciatic Peripheral Nerve Stimulation for Intractable Ischemic Limb Pain in Non-Reconstructable PAD

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## Introduction

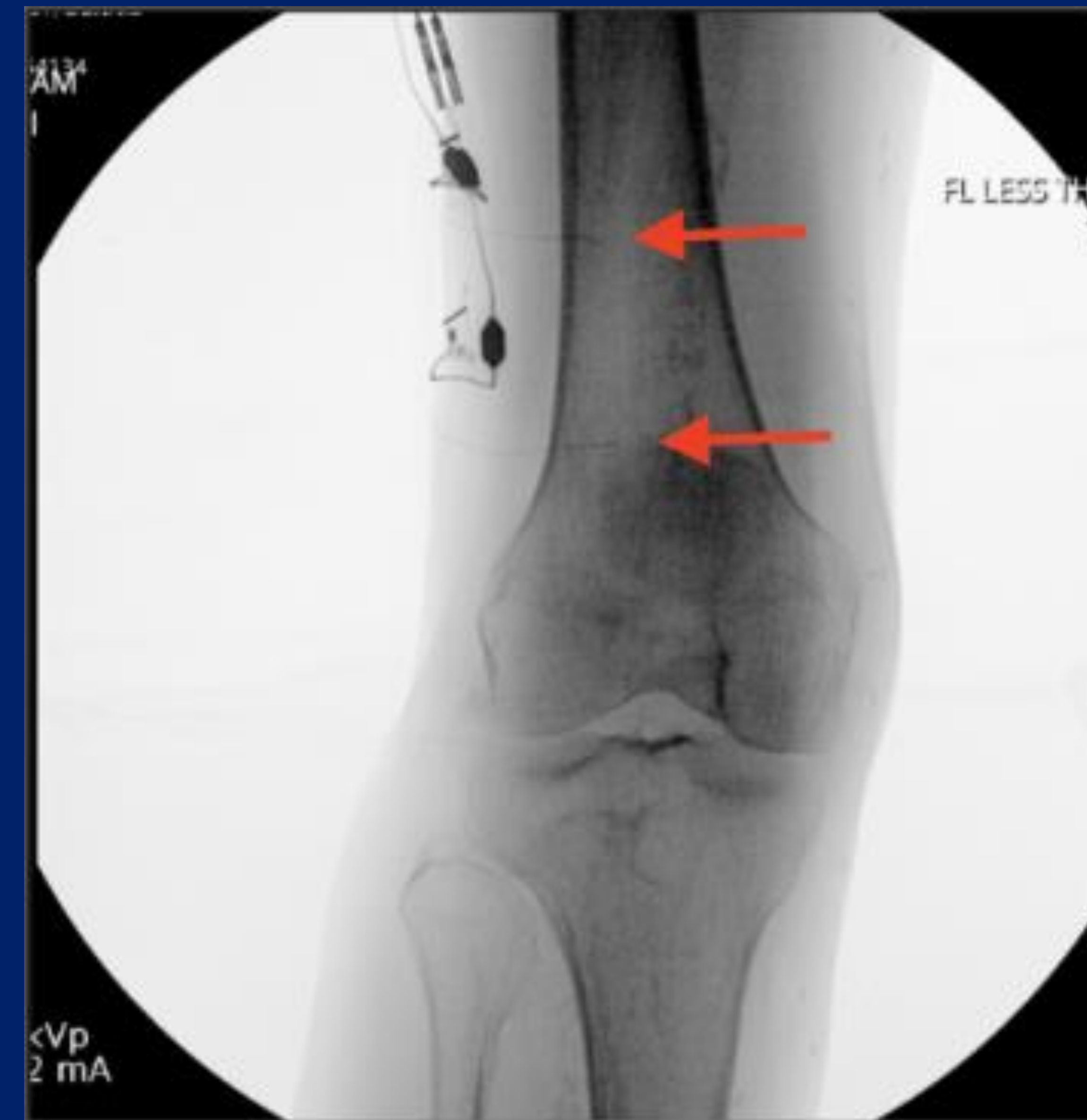
- Pain in advanced PAD limits activity and quality of life.
- Spinal cord stimulation (SCS) has been used successfully for pain in PAD.
- Bleeding risk is increased in patients on antiplatelet and anticoagulant therapy.
- Sciatic peripheral nerve stimulation (PNS) was implemented as a limb-salvage measure with successful short-term relief.

## Case Report

- 78 yo male with PAD was hospitalized for uncontrolled right foot pain.
- Medical history: HTN, HLD, COPD and 60 PY.
- Dx: Non-reconstructable critical limb ischemia (CLI).
- Declined amputation surgery.
- Conservative management: DAPT, physical therapy (PT) and pain control.
- Pain limited rehabilitation and discharge.



## Sciatic peripheral nerve stimulation provided >50% pain relief and short-term limb salvage in end-stage PAD, facilitating discharge and rehabilitation



PNS leads targeting the sciatic nerve.  
Superior arrow: lead placement in the proximal sciatic nerve.  
Inferior arrow: lead in the distal sciatic nerve.



## Intervention

- Two PNS leads placed under US guidance.
  - Above the popliteal fossa
  - At peroneal bifurcation
- Outcome:  $\geq 50\%$  pain relief, initiation of PT and facilitation of discharge.
- Lead migration and progression of disease led to readmission, end of trial and BKA.

## Discussion

- PNS has a potential role as a limb-salvage alternative.
- Compared to SCS: PNS is less invasive, viable with DAPT use and effective for localized ischemic pain.
- This case demonstrated rapid analgesia and improved function facilitating rehab and discharge.
- Short-term success limited by progression of ischemia and lead migration.
- Lack of high-level evidence for efficacy, durability and safety of PNS in CLI.

