

Peripheral Nerve Block as Primary Anesthetic for Primary Total Knee Arthroplasty in a High Risk Patient

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Introduction:

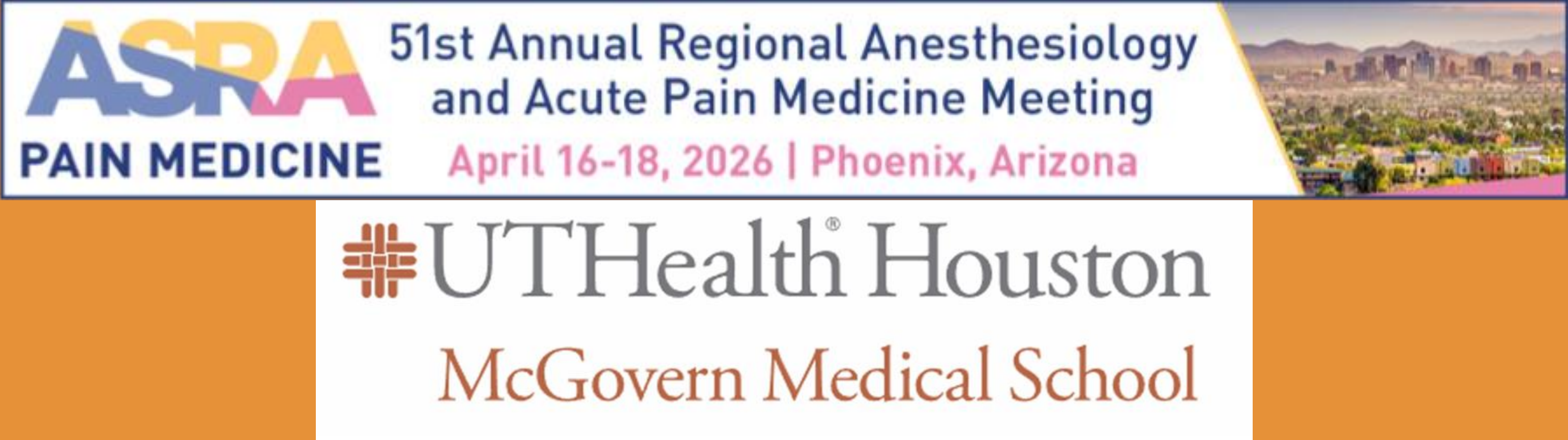
TKA is commonly performed under general anesthesia (GA) or neuraxial anesthesia (NA). Combined PNB may offer access to TKA in patients at high risk for GA with contraindications to NA.

Material/Methods:

- Case report
- Plain bupivacaine 0.5% used in all described blocks.

Results/Case Study:

- Demographic: 76-year-old male with history of heart failure with ejection fraction of 20%, biventricular AICD, symptomatic hypotension requiring steroids, coronary artery disease with previous myocardial infarction on ticagrelor, and chronic kidney disease
- Procedure: TKA under NA
- Contraindication: taken ticagrelor 1 day prior
- PNBs:
 - Femoral (15 ml)
 - Anterior and posterior obturator (3 ml, 2 ml)
 - Lateral femoral cutaneous nerve (4 ml)
 - Anterior sciatic (16 ml)



Use of multiple PNBs
yields adequate
surgical block for
total knee
replacement.



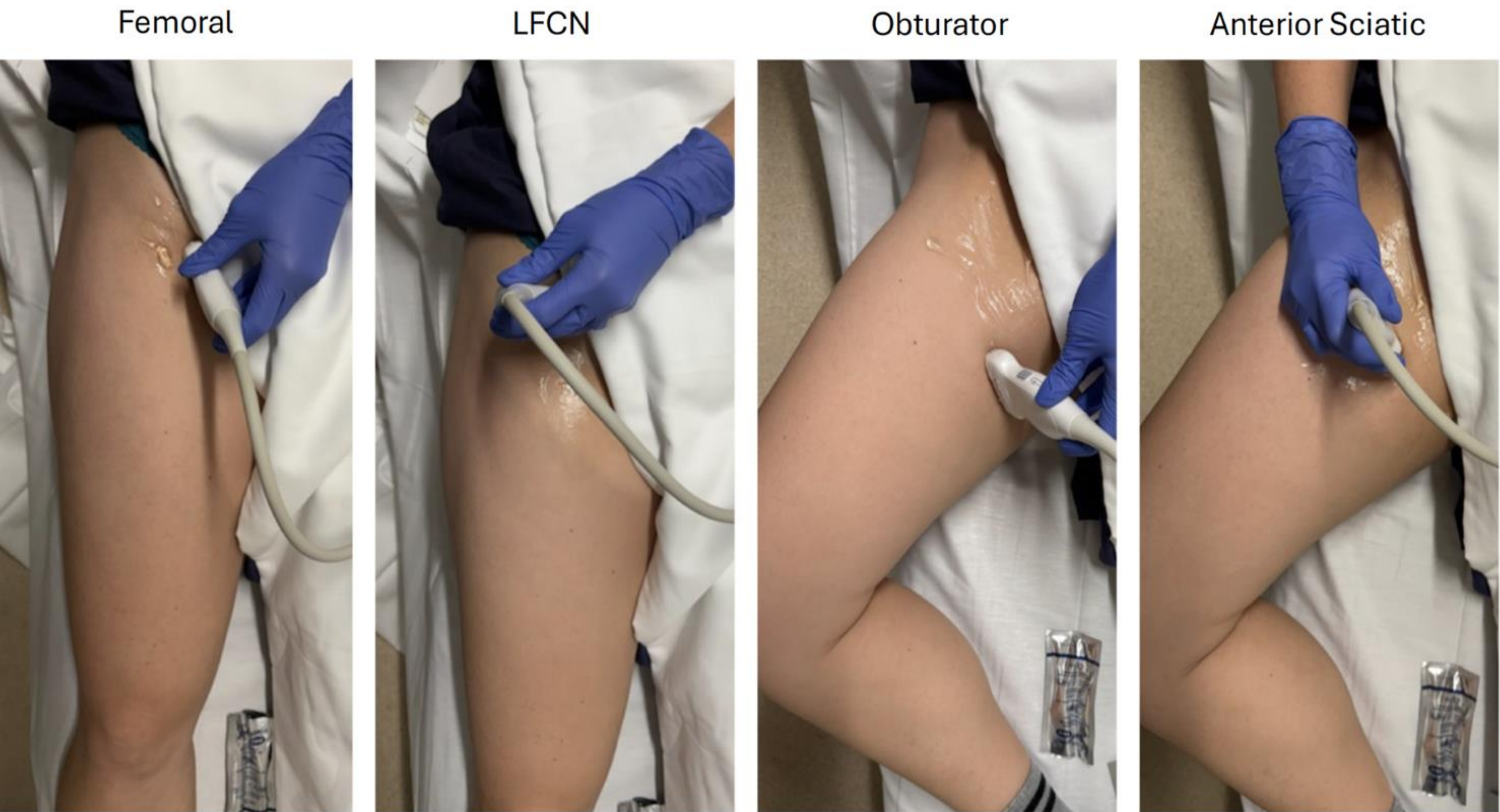
Paper



Poster

Discussion:

- Concern for tourniquet pain due to variable coverage of posterior femoral cutaneous nerve (PFCN) in anterior sciatic block approach
 - Concurrent PFCN block occurs in estimated 15% anterior sciatic approach vs 68% with subgluteal approach.³
 - Higher sciatic blocks may not improve thigh tourniquet pain despite more reliable PFCN coverage.⁴
- Combining femoral, LFCN, obturator and anterior sciatic blocks yielded sufficient analgesia for TKA without sacrificing tourniquet tolerance.
- Anterior sciatic approach allows maintenance of supine positioning. Avoiding patient repositioning and minimal ultrasound probe translation may improve patient comfort and decrease PNB performance time.
- This PNB combination may be an efficient and effective primary anesthetic strategy in high-risk patients.



Probe placement for femoral, LFCN, obturator (anterior and posterior branches), and anterior sciatic blocks
The patient is able to remain supine with minimal repositioning.