

Outpatient Continuous Adductor Canal Block in Total Knee Arthroplasty: A Double Blinded Randomized Controlled Trial

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INTRODUCTION

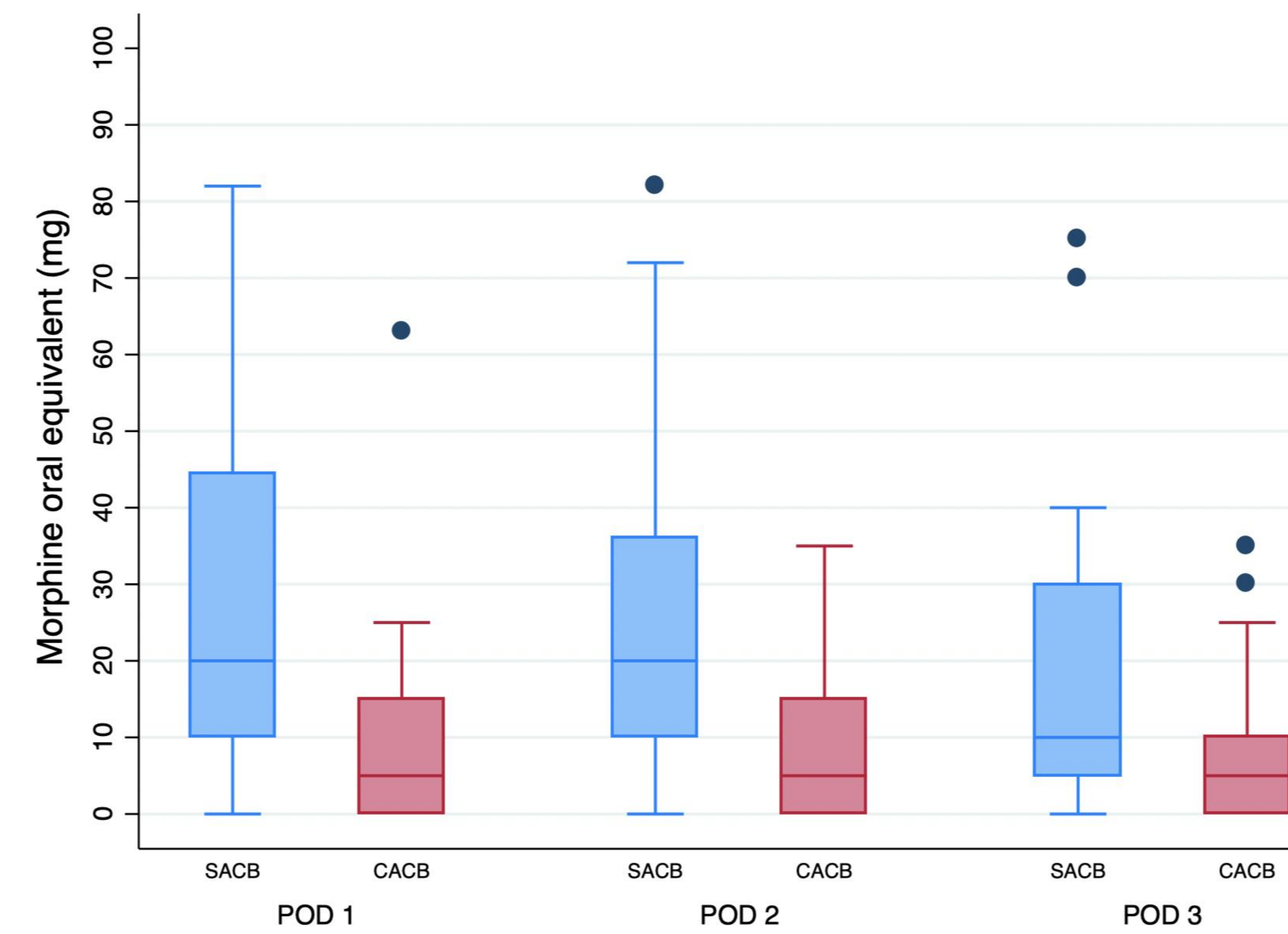
- Pain recovery following total knee arthroplasty (TKA) delays mobilization and remains a significant barrier for patient recovery.
- Continuous adductor canal blocks (CACB) using a catheter-based technique can increase the duration of ACB analgesia
- The benefit of CACB in an outpatient setting has yet to be investigated.

METHODS

- Outpatient or short stay primary TKA going home with a CACB (Ropivacaine 0.2% vs Normal saline 0.9%).
- Catheters tunneled using ISAFE technique: Inter-fascial space between the Sartorius muscle and Femoral artery¹
- Primary outcome was total opioid consumption at 48 hours, Secondary outcomes were: Quality of Recovery (QoR-15) scores, numerical rating scale (NRS) for pain at rest and movement, hospital length-of-stay (LOS), and CACB catheter-related complications .

RESULTS

- Fifty-nine patients were included in the intention-to-treat analysis. 29 in the CACB group and 30 in the control group.

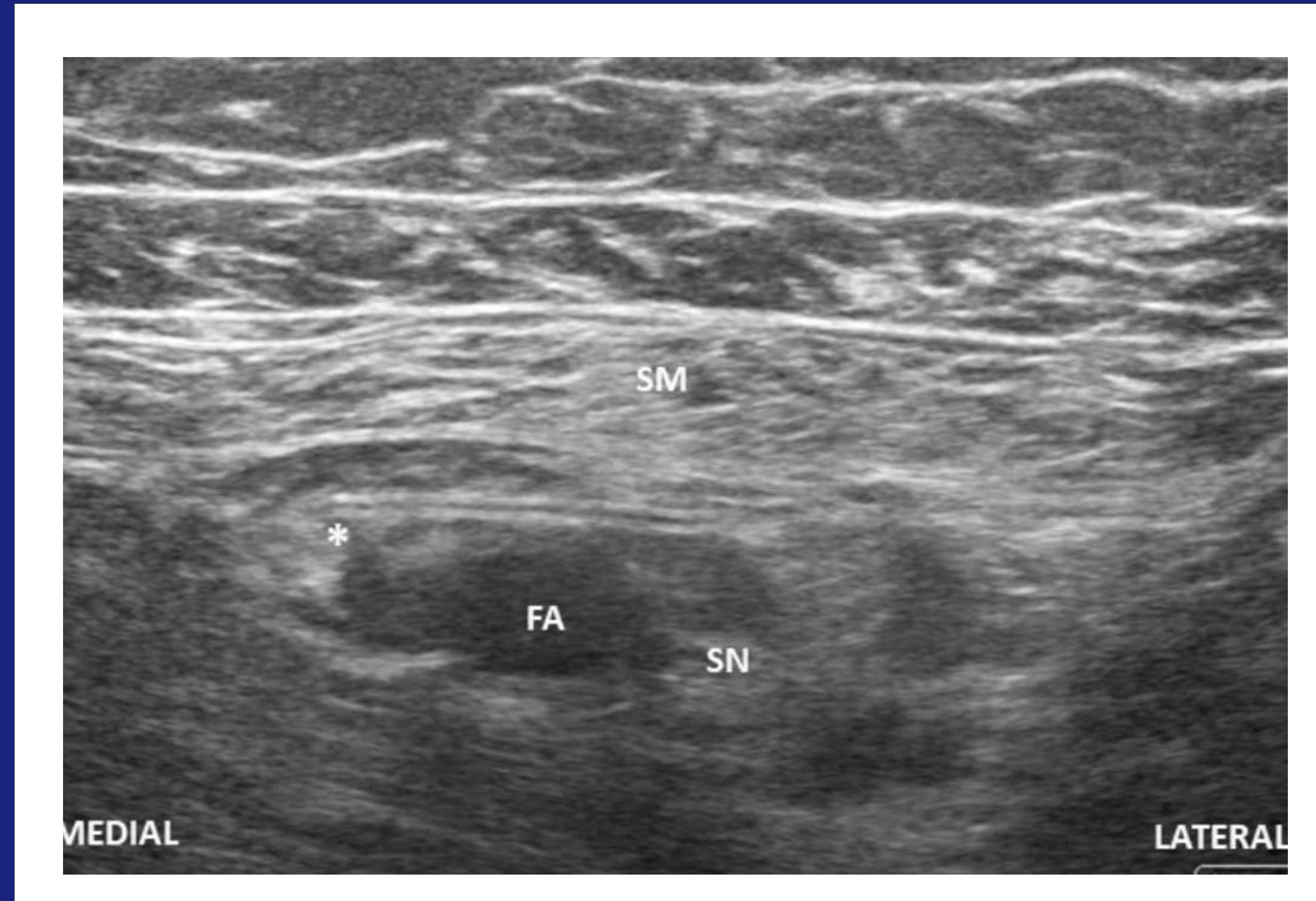


SACB: Single adductor canal block ;CACB: Continuous adductor canal block; POD: Postoperative day

DISCUSSION

- For patients undergoing outpatient or short-stay primary TKA, an outpatient CACB provides superior analgesia over a SACB. Furthermore, the use of a CACB resulted in better quality of recovery scores, indicating that the impact of CACB extends to patient functional recovery.

ISAFE-Continuous adductor canal (ACB) catheter provides a superior analgesia and quality recovery over single shot ACB for TKA



At 48 hours the median opioids requirements were 64.4% lower



QOR-15 score			
	SACB	CACB	p-value*
24-hr QOR-15 score	109[100-121]	132[119-138]	< 0.01
48-hr QOR-15 score	116[98-121]	133.5[122-141]	< 0.01
72-hr QOR-15 score	114.5[94-124]	135.5[125-144]	< 0.01
Values are median [IQR] *p-value for Mann-Whitney test SACB, single injection adductor canal block; CACB, continuous adductor canal block; QOR-15, quality of recovery-15;			

Pain Score (Numeric rating scale)			
	SACB	CACB	p-value*
At rest			
24-hr	5[1-6]	1 [0-4]	< 0.01
48-hr	5 [4-6]	1 [0-4]	< 0.01
72-hr	4 [2.5-5.5]	0.5 [0-3]	< 0.01
At Movement			
24-hr	7[5-8]	4[2-6]	< 0.01
48-hr	8 [7-9]	4 [2-6]	< 0.01
72-hr	7 [6-8.5]	4 [2-5]	< 0.01
Values are median [IQR]. *p-value for Mann-Whitney test SACB, single injection adductor canal block; CACB, continuous adductor canal block			

Reference 1.

