

Effect of direct adductor canal block performed by a surgeon in a patient who underwent simultaneous bilateral Total Knee Arthroplasty



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Conflict of interest

Kim MS, MD. Ph.D.

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We have no financial conflict to disclose.

Introduction

- ◆ Effective pain control in the early postoperative period after total knee arthroplasty (TKA) is essential not only for rapid recovery but also for early discharge after surgery.
- ◆ For such pain control, a multimodal pain management protocol is recognized as an essential part after TKA.
- ◆ The adductor canal block, which is one of the peripheral nerve blocks, is well known to be very effective in controlling the early postoperative pain following TKA.

Purpose

◆ compare the effects of intraoperative direct adductor canal block of one knee in patients who underwent primary simultaneous TKA with those in the other knee that did not receive adductor canal block.

Materials and Methods

- ◆ Same critical pathway & basic pain management protocol during hospitalization
- ◆ Reviewed the data of 45 patients who underwent simultaneous bilateral TKA, collected prospectively.
- ◆ In addition to periarticular injection during surgery, intraoperative direct adductor canal block was performed in one knee without the use of ultrasonography and only periarticular injection was performed in the other knee.

Materials and Methods

◆ Postoperative Pain management during hospitalization

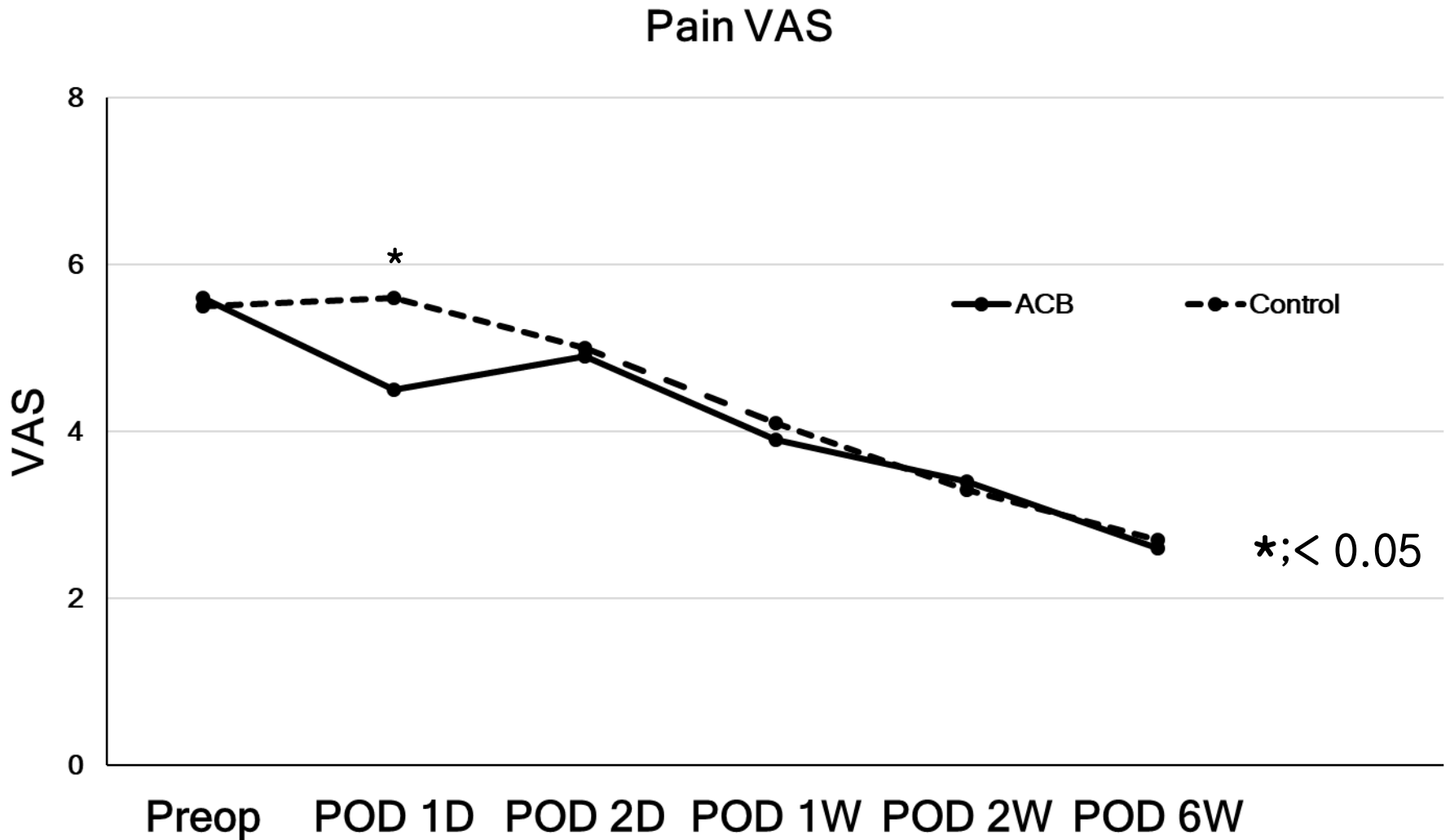
- Preemptive analgesia: 200mg celecoxib & 150mg pregabalin
- Periarticular injection
- Intravenous patient-controlled analgesia (PCA)
 - 10mg oxycodone, 200mg celecoxib, 37.5mg tramadol
 - 650mg acetaminophen every 12 hours for 1 week
- PRN: Intramuscular injection of tridol (50 mg)
- After discharge: 200mg celecoxib & 650mg acetaminophen every 12 hours for six weeks

Materials and Methods

◆ Clinical outcomes

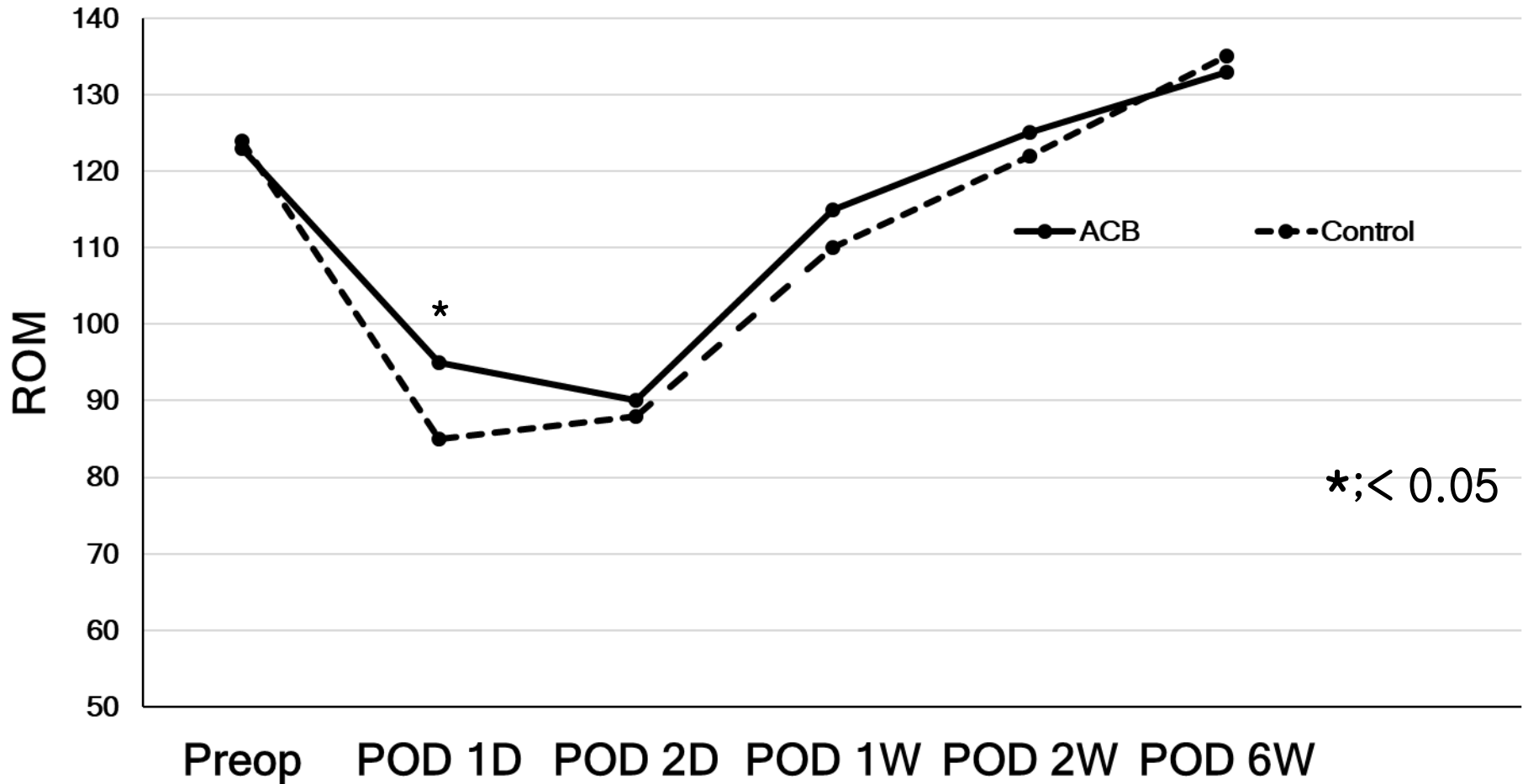
- ✓ Self-reported pain severity with ambulation, at rest, at nighttime using 10 point VAS score
- ✓ Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC) Score
- ✓ Range of motion (ROM)

Results: Pain VAS

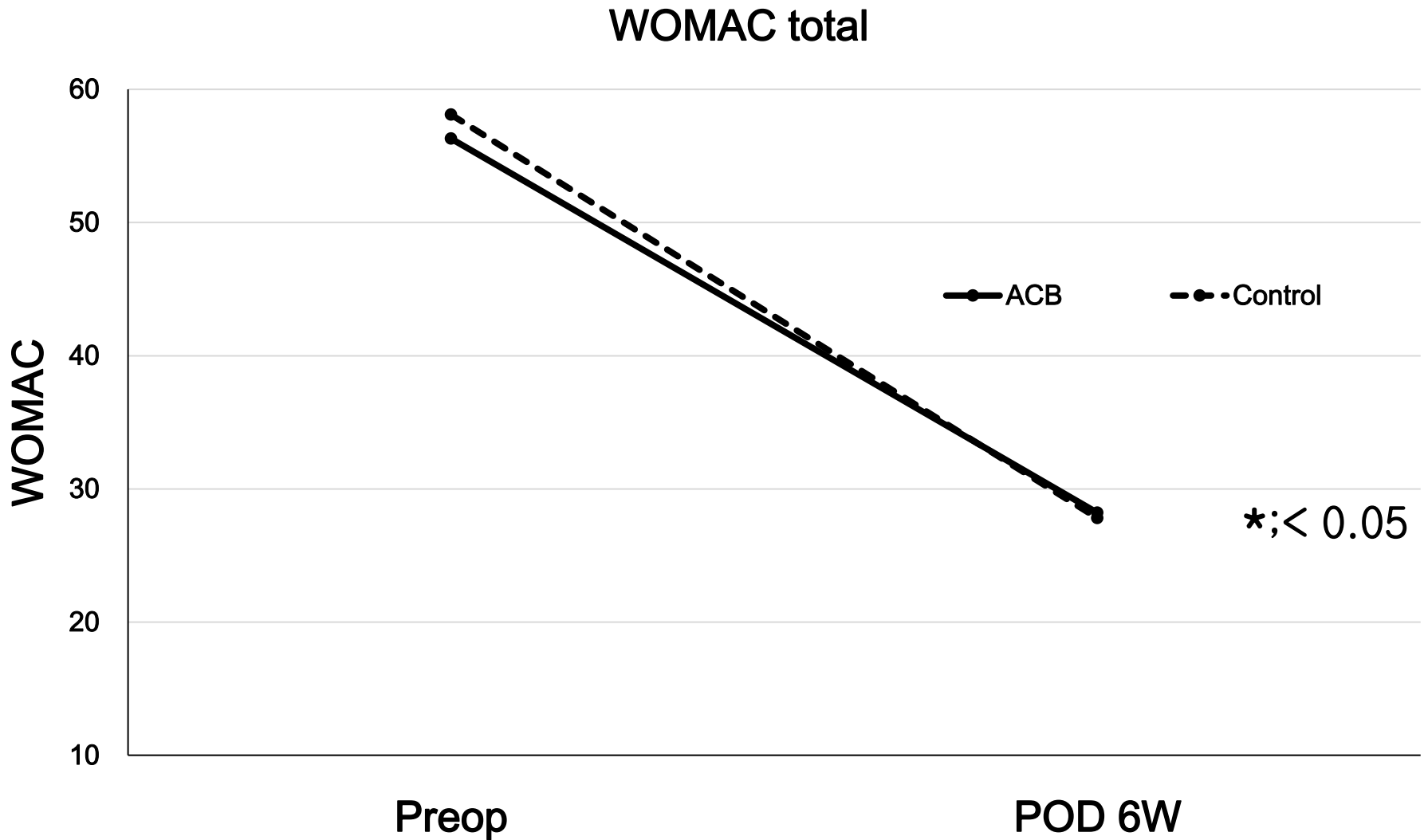


Results: ROM

ROM



Results: WOMAC



Conclusion

- ◆ **Direct adductor canal block performed by a surgeon during surgery showed significant effects on pain reduction and ROM recovery up to 1 day after surgery. Direct adductor canal block can be considered as an effective alternative to adductor canal block using ultrasonography.**

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