

별첨 1

비뚤림위험 평가

1. Rob

연번(Ref ID)	1
1저자(출판연도)	Behrend (2022)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>An assistant not involved in other parts of the trial made the computer-generated block randomization (www.sealedenvelope.com) with equal number of subjects in each block (1:1:1).</p>
Allocation concealment (배정순서 은폐)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>Opaque envelopes ensured allocation concealment.</p>
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>The infusion pumps did not display the infusion program, and both patients and investigators were therefore blinded throughout the trial period.</p>
Blinding of outcome assessment (결과평가에 대한 눈가림)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>All patients were evaluated postoperatively before discharge and contacted by phone by one of the investigators on each of the three postoperative days to guide and to remind patients of filling out the trial questionnaire continuously</p>
Incomplete outcome data (불충분한 결과자료)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>결측치가 군간 유사하게 발생 - (3 arms) We randomized 86 patients. Of these, 27 patients in each intervention group were included in the final data analysis~ - excluded: CONT-INF (2명), PIB (3명), BOL-ON-DEM (0명)</p>
Selective reporting (선택적 보고)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>프로토콜은 없지만 연구방법에 명시된 결과들을 연구결과에서 보고하고 있음</p>
Industrial funding support (민간연구비 지원)	<div> <input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실 </div> <p>Funding information This trial was funded by Innovation Fund Denmark (grant number 65-2014-3) and Nordsjællands Hospital (no grant number).</p>

연번(Ref ID)	2
1저자(출판연도)	Finneran (2022)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실

After confirming a successful block in the sciatic distribution, participants were randomized using a computer generated list (prepared by the University of California San Diego Investigational Drug Service) and provided to the investigators in opaque, sealed, sequentially numbered security envelopes to one of two treatment groups (1:1 ratio) in blocks of four:

Thus, both the participants and investigators were blinded to treatment group.

participants and outcome assessors were blinded to randomization.

A total of 71 participants were enrolled beginning July 15, 2020, and ending March 10, 2021 (fig. 2). Enrollment was ceased when the target sample size had been obtained, and data collection was finished on March 16, 2021. All but one participant had a successful sciatic nerve block. The remaining 70 participants were randomized and equally divided between the treatment groups, ~

주요 결과인 통증 점수 및 약물 사용은 그래프로만 제시함 (p-value는 모두 제시함)

Research Support
InfuTronix (Natick, Massachusetts) provided the electronic pumps used in this study. The company was given the opportunity to review the protocol and suggested minor revisions. The investigators retained full control of the investigation, including study design, protocol implementation, data collection, data analysis, results interpretation, and manuscript preparation.

연번(Ref ID)	3															
1저자(출판연도)	Breebaart (2021)															
영역	비뚤림위험															
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Patients were randomized by a computer-generated sequence and concealed in sealed envelopes to either a continuous infusion of LA (group A) or to the PIB group (group B).														
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실															
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	prospective double-blind randomized trial The envelope was opened, and the pump prepared by an independent anesthesiologist who did not participate in registration of the parameters.														
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	The anesthesiologist performing the block, the patient and the independent observer were unaware of the study group. The data and observations were collected at the ward by a study nurse, who also collected the data out of the PCA pump after 48 hours.														
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치가 군간 유사하게 발생하고 원인도 유사함 <table border="1"> <thead> <tr> <th rowspan="2"></th><th colspan="2">lost to follow-up</th></tr> <tr> <th>Group B (Bolus) 7명</th><th>Group C (Continuous) 9명</th></tr> </thead> <tbody> <tr> <td>lost pump data</td><td>2</td><td>1</td></tr> <tr> <td>protocol violation</td><td>3</td><td>4</td></tr> <tr> <td>catheter related problems</td><td>2</td><td>4</td></tr> </tbody> </table>		lost to follow-up		Group B (Bolus) 7명	Group C (Continuous) 9명	lost pump data	2	1	protocol violation	3	4	catheter related problems	2	4
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Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	프로토콜은 없지만 연구방법에 명시된 결과들을 연구결과에서 보고하고 있음														
Industrial funding support (민간연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Funding No funding was received for this study.														

연번(Ref ID)	4
1저자(출판연도)	Short (2019)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실

Randomization was performed by a dedicated research assistant using a non-stratified 1:1 computer-generated randomization table and sealed envelope technique. CI or PIB regimes were delivered using the CADD - Solis Ambulatory Infusion Pump (Smiths Medical, Minneapolis, Minnesota, USA).

Study participants and investigators collecting outcomes were blinded to group allocation by covering pump settings.

Postoperative outcomes were assessed by a blinded investigator at discharge from PACU 6, 12, 24, 36 and 48 hours following commencement of the infusion.

결측치 없음
- A total of 60 patients were randomized to receive CI (n=30) or PIB (n=30) infusion regimens

프로토콜은 없지만 연구방법에 명시된 결과들을 연구결과에서 보고하고 있음

- Funding: This study was supported by a financial grant and equipment supplies from Smiths Medical. Dr Ki Jinn Chin is supported by a Merit Award from the Department of Anesthesia, University of Toronto.
- Competing interests: VWSC (공저자) has received honorarium from Aspen Pharma, BBraun, Smiths Medical and SonoSite. The other authors declare no conflicts of interest.

연번(Ref ID)	5	
1저자(출판연도)	Ding (2015)	
영역	비뚤림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Randomization was performed using an online randomizer, similar to a flip of a coin.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Participants were randomized to receive either a popliteal sciatic nerve block as a single shot (SSB group) or a continuous infusion through an On Q continuous infusion pump (On Q group).
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Patients were blinded to the group they were randomized to until after the surgery. The surgeon and anesthesiologist were blinded to the randomization until the day of surgery.
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Follow-up data collection was performed by trained full-time research coordinator who was also blinded to the randomization until the day of surgery.
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치가 군간 유사하게 발생하고 원인도 유사함 - Of the 50 patients enrolled in this study, a total of 6 were excluded. Reasons for exclusion included an inability to provide adequate postoperative follow-up (2 SSB and 1 On Q), a history of chronic pain that was not initially disclosed to the treatment team (1 SSB and 1 On Q),
Selective reporting (선택적 보고)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	불완전한 결과보고 - 주요 결과인 통증 점수는 그래프로만 제시되고, 일부 결과지표는 결과값을 제시하지 않고 통계적 유의성만 언급함
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	N. C. Tejwani(교신저자) has received royalties from Biomet, is on the speaker's bureau and a paid consultant for Zimmer and Stryker, and is a board member of the Orthopaedic Trauma Association and the Foundation of Orthopaedic Trauma. The remaining authors report no conflict of interest.

연번(Ref ID)	6
1저자(출판연도)	Elliot (2010)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Industrial funding support (민간연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실

연번(Ref ID)	7	
1저자(출판연도)	Taboada (2009)	
영역	비뚤림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Using a computer-generated sequence, patients were randomly assigned to receive either a CI of 0.125% levobupivacaine at an infusion rate of 5 ml/h (group CI, n=25) or an ARB dose of 5 ml every hour of the same local anesthetic (group ARB, n=25).
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	prospective, randomized, double-blind study
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	An investigator blinded to the study evaluated the degree of pain at 6 and 24 h postoperatively.
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치 없음 - Fifty patients were enrolled in the study.
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	프로토콜은 없지만 연구방법에 명시된 결과들을 연구결과에서 보고하고 있음
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급없음

연번(Ref ID)	8	
1저자(출판연도)	Taboada (2008)	
영역	비뚤림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Using a computer-generated sequence, patients were randomly assigned to receive either a continuous infusion of 0.125% levobupivacaine at an infusion rate of 5 mL/h (n 22) or an automated intermittent bolus dose of 5 mL every hour of the same local anesthetic (n 22) for 24 h after surgery.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	prospective, randomized, double-blind study
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	An investigator blinded to the study evaluated the degree of pain at 6, 8 12, and 24 h postoperatively.
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치 없음
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	주요 결과인 통증 점수 및 약물 사용은 그래프로만 제시함
Industrial funding support (민간연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Supported by Institutional and Departmental sources.

연번(Ref ID)	9	
1저자(출판연도)	Dadure (2006)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Children were randomly assigned to CEB (Group 1) or CPNB (Group 2). Randomization was generated by our institutional Department of Biostatistics.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급없음
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급없음
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치가 군간 유사하게 발생하고 원인도 유사함 - Four patients were excluded from the study after randomization: one for blood in the epidural catheter before surgery (Group 1B), one for inability to place popliteal catheter (Group 2A), and two for revocation of parents' consent.
Selective reporting (선택적 보고)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	- 주요 결과인 통증 점수는 그래프로만 제시함 - 약물 사용은 평균값만 제시하고 표준편차(SD) 제시하지 않음
Industrial funding support (민간연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Supported, in part, by the Association pour le Developpement et la Recherche en Anesthesie Reanimation, CHU Lapeyronie, Montpellier, France (마취소생술 개발 및 연구 협회)

연번(Ref ID)	10
1저자(출판연도)	Zaric (2004)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
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Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실

연번(Ref ID)	11
1저자(출판연도)	White (2003)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실

연번(Ref ID)	12
1저자(출판연도)	Ilfeld (2002)
영역	비뚤림위험
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Industrial funding support (민간연구비 지원)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실