

별첨 1

비뚤림위험 평가

연번(Ref ID)	2147
1저자(출판연도)	Almeida(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
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실

We carried out a **block randomization**. Three blocks were established, with seven participants in each. In the **envelope designated for the randomization**, there were nine pieces of paper: three with “4kHz/100Hz” written on them, three with “4kHz/2Hz”, and three with “PG”.

The pieces of paper were picked **by the participants themselves, who were not aware of the groups to which they had been allocated**. The randomization process was carried out three times.

-This is a **double-blind**, 3-armed, randomized controlled clinical trial

-As strong points of this study, we highlight the double blinding, the use of validated and culturally adapted instruments to assess pain, performance of flexibility tests, and the specific population(individuals with low back pain).

They were evaluated before and immediately after the intervention, by a previously trained, blinded physical therapist.

결측치 없음

프로토콜이 존재하여 연구에서 사전에 정해놓은 결과에 대해 모두 보고함
 (The project was approved by the Research Ethics Committee of the Federal University of Paraná (CAEE: 44642615.2.0000.0102), under **protocol number 1145540**, and prospectively registered on ensaioclinicos.gov.br (RBR-59YGRB).)

This research **did not receive any specific grant** from funding agencies in the public, commercial, or not-for-profit sectors.

연번(Ref ID)	647
1저자(출판연도)	Tella(2022)
영역	비몰립위험
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 checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" 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
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실

Permuted block sizes of 5, 4, and 3 generated a list of computer codes for 51 participants assigned to three groups (Fig. 1).

This study was a **single-blinded** randomized clinical trial

Different days and times of group intervention ensured **blinding for participants.**

관련 언급 없음

결측치가 군간 유사하게 발생하고(각 군별 4명씩 탈락) 결측치가 발생한 원인도 유사함

연구에서 사전에 정해놓은 결과에 대해 모두 보고함

Source(s) of financial support: The study is **self-funded.**

Conflict of Interest: The authors declare **no conflict of interest** whatsoever.

연번(Ref ID)	1520
1저자(출판연도)	Dias(2021)
영역	비폴립위험
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 type="checkbox"/> 낮음 <input checked="" 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
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실

After the baseline assessment, the participants were **randomized using random blocks.**

Before, block randomization was performed for the TENS group. For this, each block contained 15 papers, 5 containing of GT100Hz, 5 of GT2Hz and 5 of GTP. When the 15 papers were drawn, a new block was formed. In total, these blocks were repeated 7 times, totaling 105 **participants, who were blinded to the intervention.**

In addition, 1 physiotherapist who was unaware of the study performed the intervention. After the end of the TENS experiment, block randomization was initiated in the interferential groups. Again, in each block there were 5 papers from each group, i.e., 5 of GI2kHz/ 100Hz, 5 of GI2kHz/2Hz, 5 of GI4kHz/100Hz, 5 of GI4kHz/2Hz and 5 of GIP, totaling 25 papers. The block randomization was performed 11 times until it totaled 280 participants.

This is a randomized, double-blind clinical trial **blinded examiner**, previously trained for each of the different stimuli (TENS x IFC).

언급없음

결측치 없음

사전에 정해놓은 결과에 대해 모두 보고함

Declaration of competing interest
The authors declare they have **no conflicts of interest**

연번(Ref ID)	1933	
1저자(출판연도)	Espejo-Antunez(2021)	
영역	비몰림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	An external website(http://www.randomization.com) (accessed on 27 May 2020) was used to complete the group allocation. Participants were randomly (using block randomization, 1:1) allocated into 1 of the 2 groups created: the experimental group (ICT) and the sham group.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	The randomization was performed by an external assistant . The participant had to pick up a number out of a hat .
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	randomized, single-blind , controlled trial.
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	A blinded researcher collected the measurements at baseline and immediately after the treatment. The <u>rater</u> , who was blinded to group allocation , collected the baseline clinical data.
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	연구에서 사전에 정해놓은 결과에 대해 모두 보고함
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Conflicts of Interest: Authors declare no conflict of interest . Funding: This research received no external funding .

연번(Ref ID)	1873	
1저자(출판연도)	Joshi(2021)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<p>They were randomly divided into 3 groups i.e. Group A, B and C. Each group consisted of 15 participants.</p> <p>-무작위 배정 방법에 대한 설명이 없음</p>
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	A randomized, controlled and single blinded (participant) clinical trial was carried out
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음
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	연구에서 사전에 정해놓은 결과에 대해 모두 보고함
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음

연번(Ref ID)	23	
1저자(출판연도)	Jung(2020)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	A person who was not involved in the study picked out a number (either 1 or 2) from a sealed envelope for unbiased randomization .
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	-무작위 배정 방법에 대한 설명이 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	This study was designed as a double-blinded randomized controlled trial (RCT).
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	The participants were <u>evaluated</u> before and one day after training for two weeks by three well-trained physical therapists, who were not informed on the subjects and the purpose of this study.
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	결측치 없음 No one was dropped out after the training
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	연구에서 사전에 정해놓은 결과에 대해 모두 보고함
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	This work was supported by the 2019 Gimcheon University Research Grant. This work was supported by the National Research Foundation of Korea (NRF) grant funded by the Korea government (MSIT) (No. 2017R1C1B507659714).

연번(Ref ID)	1843	
1저자(출판연도)	Tantawy(2020)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	61 patients suffering from CNLBP were randomly assigned to IF group (n=30) and placebo IF (n=31)
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	By asking the subjects to draw an envelope from a concealed box , each envelope contains a yellow or blue card and they were accordingly assigned to the two groups of the study.
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음
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	연구방법에 언급된 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	The authors declare no conflict of interest regarding this article. No funding for this study

연번(Ref ID)	1952	
1저자(출판연도)	Tuncay(2019)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Casual randomization using the sealed numbered envelope technique was performed by an administrative assistant
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	three-arm, randomized controlled trial with as assessor who was blinded to the group allocation
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	three-arm, randomized controlled trial 관련 언급없음
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	A single phyciatrist who was blinded to the randomization process evaluated each patient before treatment, and one week and 12 weeks after the treatments. After evaluation by the phyciatrist, the patients were randomized into three groups
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	3개월간의 추적관찰기간 동안 결측치 및 이탈자 없음
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	프로토콜은 없지만 연구방법에 언급된 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음

연번(Ref ID)	1109
1저자(출판연도)	Franco(2018)
영역	비풀림위험
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
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실

The group allocation was concealed in **sequentially numbered opaque-sealed envelopes**.

Treatment with electrical stimulation was performed by different physical therapists to those responsible for the pilates exercises **to ensure blinding of pilates therapists** in relation to the type of current used.

In an attempt to blind the patients of the placebo group as to their treatment group, they were told in the beginning of the treatment that they might or might not feel a tingling sensation, according to an individual sensitivity.

The data were coded so that the statistician remained **blind to group allocation**

Pain intensity was **assessed at each session by the therapist** who performed treatment with the pilates method. This therapist was blinded to the type of current that the patient received so as not to influence the way the exercise was conducted.

결측치 없음

프로토콜이 존재하여 연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음

The randomized controlled trial was approved by the Research Ethics Committee of Universidade Cidade de Sao Paulo (CAAE 18034113.7.0000.0064) and **funded by Sao Paulo Research Foundation (FAPESP - 2013/17303-6)**.

FAPESP was not involved in the data collection or analysis.

연번(Ref ID)	24	
1저자(출판연도)	Lee(2018)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	선정된 20명에게 임의로 번호를 부여하고 SPSS 프로그램의 무작위 표본 추출 방법을 이용하여 대상자 중 50%를 무작위로 추출하여 추출된 집단을 ICTgroup, 나머지 집단을 placebo ICT group으로 하였다.
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	속임 간섭전류전자자극(ICT)군은 동일한 시간 동안 전류는 통전 시키지 않고 간섭전류전자자극(ICT) 패드만 부착 하였다 :연구참여자에 대한 눈가림
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음
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	연구방법에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음

연번(Ref ID)	1403	
1저자(출판연도)	Albornoz-Cabello(2017)	
영역	비몰립위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>The free software Epidat 3.1 (Conselleria de Sanidade, Xunta de Galicia, Spain and Pan-American Health Organization) was used to obtain the random sequence, which was safeguarded by an assistant not involved in the trial. A 2:1 randomization ratio, in favour of the experimental group, was used following previous trials on low back pain and the study hypothesis.</p>
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Presealed opaque envelopes were used to distribute participants into the control (n = 20) or the experimental (n = 44) groups.</p>
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Third, interventionist blinding was not possible, which may represent a potential of bias.</p>
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>A randomized, single-blinded (the subject allocation was blinded to the researcher collecting the outcome data)</p>
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>No loss to follow-up was recorded during the data collection or analysis phase.</p>
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음</p>
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Declaration of Conflicting Interests The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.</p> <p>Funding The author(s) received no financial support for the research, authorship, and/or publication of this article.</p>

연번(Ref ID)	1272	
1저자(출판연도)	Franco(2017)	
영역	비폴립위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>A researcher not involved with data collection performed the randomization using random number generation in Microsoft Excel for Windows.</p>
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>The allocation was concealed in sequentially numbered opaque sealed envelopes. After the assessment, the eligible patients were randomly allocated into the treatment groups by the physical therapists responsible for electrotherapy.</p>
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Study limitations Because the proposed intervention is exercise, it was not possible to blind all therapists and participants. Considering the risk of bias, the Pilates therapists were blinded to patient's group allocation so as not to influence them during the exercise sessions.</p> <p>Each participant was also asked not to discuss the treatment with other participants to avoid finding out which electrotherapy group they belonged to.</p>
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>The study design was a 2-arm randomized controlled trial with a blinded assessor.</p> <p><u>Outcomes, eligibility criteria, clinical, demographic, and anthropometric data were assessed by a blinded assessor.</u></p>
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>추적관찰기간 동안 결측치가 군별 각각 2명, 3명이 있었으나 군간 결측치가 유사하게 발생하고 발생한 원인도 유사함. 결측치 분율이 중재효과 추정에 임상적으로 유의한 영향을 미치지 않을 것으로 보임</p> <p>There was a loss of outcomes of 2 patients in the active IFC+Pilates group and 3 in the placebo IFC+Pilates group in the 6-week followup, and a loss of outcomes of 1 participant in the active IFC+Pilates group (except for pain, which had a loss of 2 participants) and 2 participants in the placebo IFC+Pilates group in the 6-month follow-up. These follow-up losses occurred because patients could not be reached by the telephone number provided. In the case of the 2 losses of the outcome pain, there was an error of the blinded assessor.</p>
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>프로토콜이 존재하여 연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음 (~ protocol was published previously.)</p>
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	<p>Ethics committee and funding The study was approved by the Research Ethics Committee of Universidade Cidade de Sa~o Paulo (process no.18034113.7.0000.0064)</p> <p>연구비 지원에 대한 언급 없음</p>

연번(Ref ID)	611	
1저자(출판연도)	Correa(2016)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Randomization was performed by a researcher who was not involved in the recruitment or treatment of participants. The subject allocation was performed randomly using the website randomization.com, and the group codes were kept in <u>sequentially numbered, sealed, opaque envelopes.</u>
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	Subjects were randomly allocated into three groups: 1 kHz IFC, 4 kHz IFC and placebo IFC. The evaluator and patient remained blinded to treatment. The person applying the IFC was not blinded to the treatment due to the nature of the interventions. Data analysis was performed by a statistician who was blinded to treatment groups.
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	To ensure that the evaluator and patient remained blinded throughout the entire process, <u>the equipment was covered with a dark cloth.</u> Furthermore, evaluator was not present when those questions were asked to participants.
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	세션 진행과정 동안 결측치가 군별 각각 3명, 4명, 6명 발생하고 추적관찰기간(4달) 동안 각각 3명, 0명, 1명의 결측치 발생하였음. 결측치를 제외하고 결과 분석함 군간 결측치가 유사하게 발생하고 발생한 원인(부작용 발생, 추적 관찰 놓침 등)도 유사함. 결측치 분율이 중재효과 추정에 임상적으로 유의한 영향을 미치지 않을 것으로 보임
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	프로토콜이 존재하여 연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음 the <u>trial protocol has been published</u> (Correa et al., 2013).
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Funding sources This study was supported by the Fundac~ao de Amparo a Pesquisa do Estado de S~ao Paulo - FAPESP , Brazil funding approval number: 2012/13910-2 and the Conselho Nacional de Desenvolvimento Científico e Tecnológico - CNPq (funding approval number:473929/2012-0).

연번(Ref ID)	1088	
1저자(출판연도)	Fuentes(2014)	
영역	비몰립위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	A randomization sequence stratified by sex was computer-generated by a research assistant not involved in the study.
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	This assistant distributed the results of the sequence into consecutively numbered, opaque, and sealed envelopes . Participants were allocated to the treatment groups by a physical therapist who opened the next available envelope prior to each treatment session.
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	This was a double-blind , placebo-controlled experimental study with repeated measures. All measurements under the 4 treatment conditions were made by the same trained investigator (J.F.) who was blind to the treatment applied and to the statistical analysis. Participants were blind to intervention status . To determine whether the active and sham IFC treatments were perceived differently, the difference in expectations of pain relief scores at baseline among the 4 treatments was calculated. In addition, after the session ended, participants were asked to guess the type of treatment received (ie, active IFC or sham IFC). Our study had high internal validity, as shown by adequate randomization, concealed allocation, baseline comparability among groups, and evidence of effective blinding of the research team and participants .
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	The analyst was blinded to treatment allocation .
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	연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	Dr Fuentes is supported by the University of Alberta through the Dissertation Fellowship Award. This project was <u>funded by the Physiotherapy Foundation of Canada (PFC) through the Ortho Canada Research Award and the Department of Physical Therapy, University of Alberta</u> , through the Thesis Research Operating Grant Program.

연번(Ref ID)	1130	
1저자(출판연도)	Lara-Palomo(2012)	
영역	비몰립위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>individuals were randomly assigned to receive massage with ~</p> <p>Concealed allocation was performed using a computer-generated randomized table of numbers, created prior to the start of data collection by a researcher (ICL-P) not involved in either recruitment or treatment of the patients.</p>
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Individually, sequentially numbered index cards with ratio of allocation 1:1 assignment were prepared.</p> <p>A second therapist (AMC-S) blinded to the baseline examination findings opened the envelope and proceeded <u>with treatment according to the group assignment</u>. All patients received the intervention on the day of the initial examination.</p>
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>A single blinded randomized controlled trial.</p>
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>All data were gathered before the first treatment session (baseline) and immediately after the final treatment session by a trained physical therapist assessor blinded to the treatment allocation of the patients.</p>
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>중재군에 결측치가 1명 있긴 하나, 결측치가 결과에 영향을 미치지 않을 것으로 보임</p>
Selective reporting (선택적 보고)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>연구에서 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음</p>
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Funding This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.</p>

연번(Ref ID)	1467	
1저자(출판연도)	Facci (2011)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>After evaluation by the physiotherapist, the patients were randomized, through numbers created by a computer, into three groups: 1) TENS (n = 50); 2) interferential current (n = 50); 3) controls (n = 50). The randomized design was balanced in groups of 50.</p>
Allocation concealment (배정순서 은폐)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>A set of sealed, sequentially numbered opaque envelopes was used for study group assignment.</p>
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Single-blind randomized controlled trial</p> <p>Thus, the study was single-blinded, i.e. the examiner had no contact with the patient during the treatment, and the patient was instructed not to report what assistance had been received during the sessions.</p> <p>참여자에 대한 중재 눈가림 처리가 이루어지지 않음</p>
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>After completing the 10 sessions, the patients were reassessed by an independent evaluator who used the same instruments.</p>
Incomplete outcome data (불충분한 결과자료)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>추적관찰기간 동안 각각 중재군 6명, 대조군 1명의 결측치 발생하였으나, ITT 분석을 수행함</p> <p>The intention-to-treat analysis included all the patients with VAS pain evaluations, and the worst results were considered to be losses.</p>
Selective reporting (선택적 보고)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>연구에서 사전에 정해놓은 결과지표 중 일부 결과가 누락 또는 그래프로 보고하고 있어 메타분석에 포함할 수 없음</p>
Private funding support (민간 연구비 지원)	<input checked="" type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input type="checkbox"/> 불확실	<p>Sources of funding: None Conflict of interest: None</p>

연번(Ref ID)	22	
1저자(출판연도)	Park(2011)	
영역	비뚤림위험	
Random sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	20명의 대상자들을 간섭파전류자극(IFC)군과 초음파(ultrasound)군으로 각각 10명씩 무작위로 나누었으며, ~ -무작위 배정 방법에 대한 설명이 없음
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음(보고가 있어야 함에도 불구하고 없어서 높음으로 판단)
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음(보고가 있어야 함에도 불구하고 없어서 높음으로 판단)
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	프로토콜은 없지만 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음

연번(Ref ID)	1	
1저자(출판연도)	Choi(2009)	
영역	비풀림위험	
Random sequence generation (무작위 배정순서 생성)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	대상자는 경피신경전기자극 치료군, 간섭전류치료 치료군, 초음파 치료군으로 각 10명씩 무작위로 배정하였다. -무작위 배정 방법에 대한 설명이 없음
Allocation concealment (배정순서 은폐)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음
Blinding of participants and personnel (연구 참여자, 연구자에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음(보고가 있어야 함에도 불구하고 없어서 높음으로 판단)
Blinding of outcome assessment (결과평가에 대한 눈가림)	<input type="checkbox"/> 낮음 <input checked="" type="checkbox"/> 높음 <input type="checkbox"/> 불확실	언급 없음(보고가 있어야 함에도 불구하고 없어서 높음으로 판단)
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	프로토콜은 없지만 사전에 정해놓은 결과지표에 대해 연구결과에서 모두 보고하고 있음
Private funding support (민간 연구비 지원)	<input type="checkbox"/> 낮음 <input type="checkbox"/> 높음 <input checked="" type="checkbox"/> 불확실	언급 없음