

# **Gender- and age-specific analgesia for early postoperative pain management after lumbar decompressive surgery**

**: A randomized clinical trial**

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# Disclosure

**We have no financial relationships to disclose.**



# Introduction

- Acute postoperative pain management
  - Earlier mobilization
  - Reduced hospital stay
  - Less medical complications
- Multimodal analgesia (NSAID, opioid, AAP, etc)
  - Effective postoperative pain control
  - However, no consensus on the ideal regimen

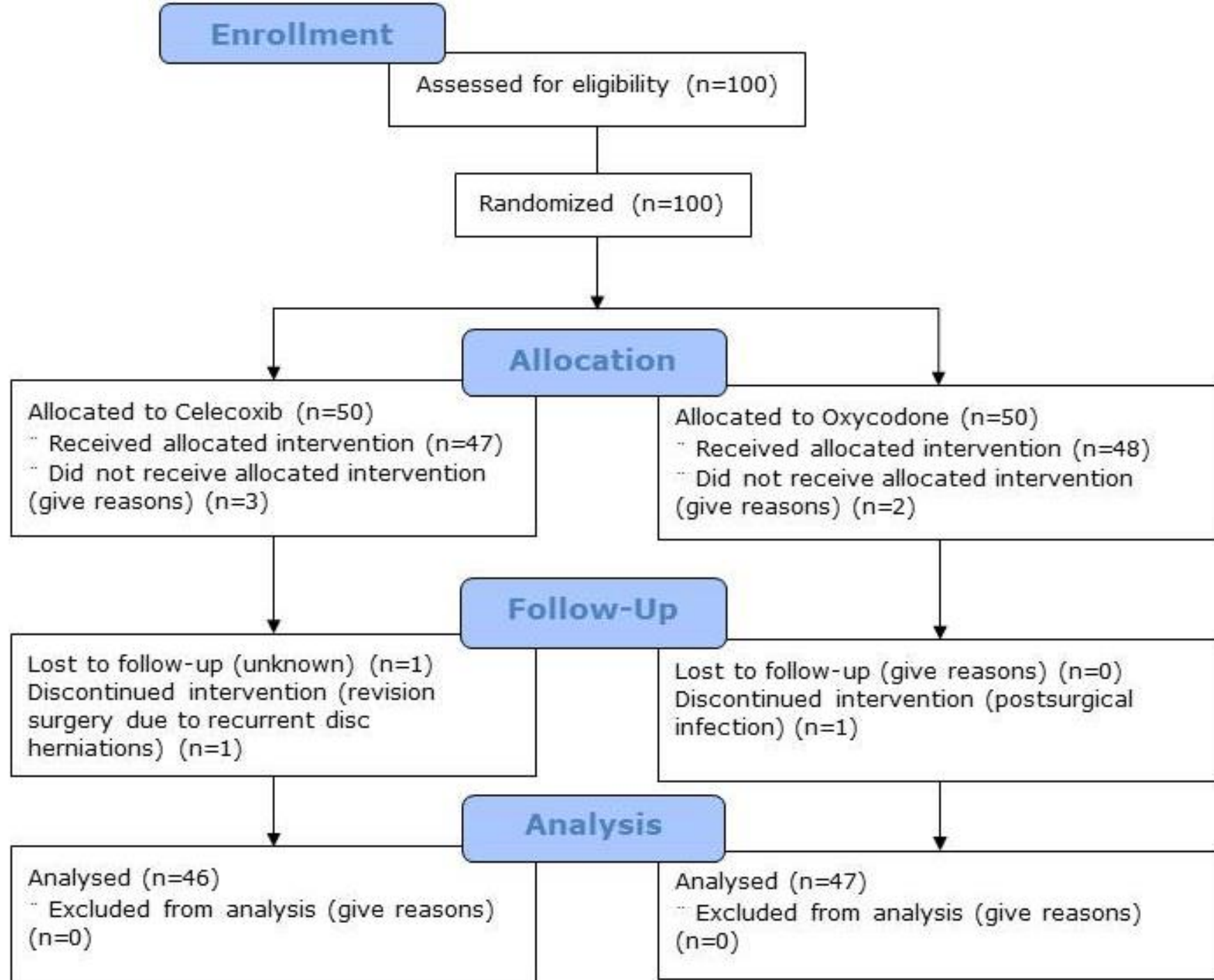
## ***Purpose of this study***

: To compare NSAID and opioid in terms of the efficacy and safety

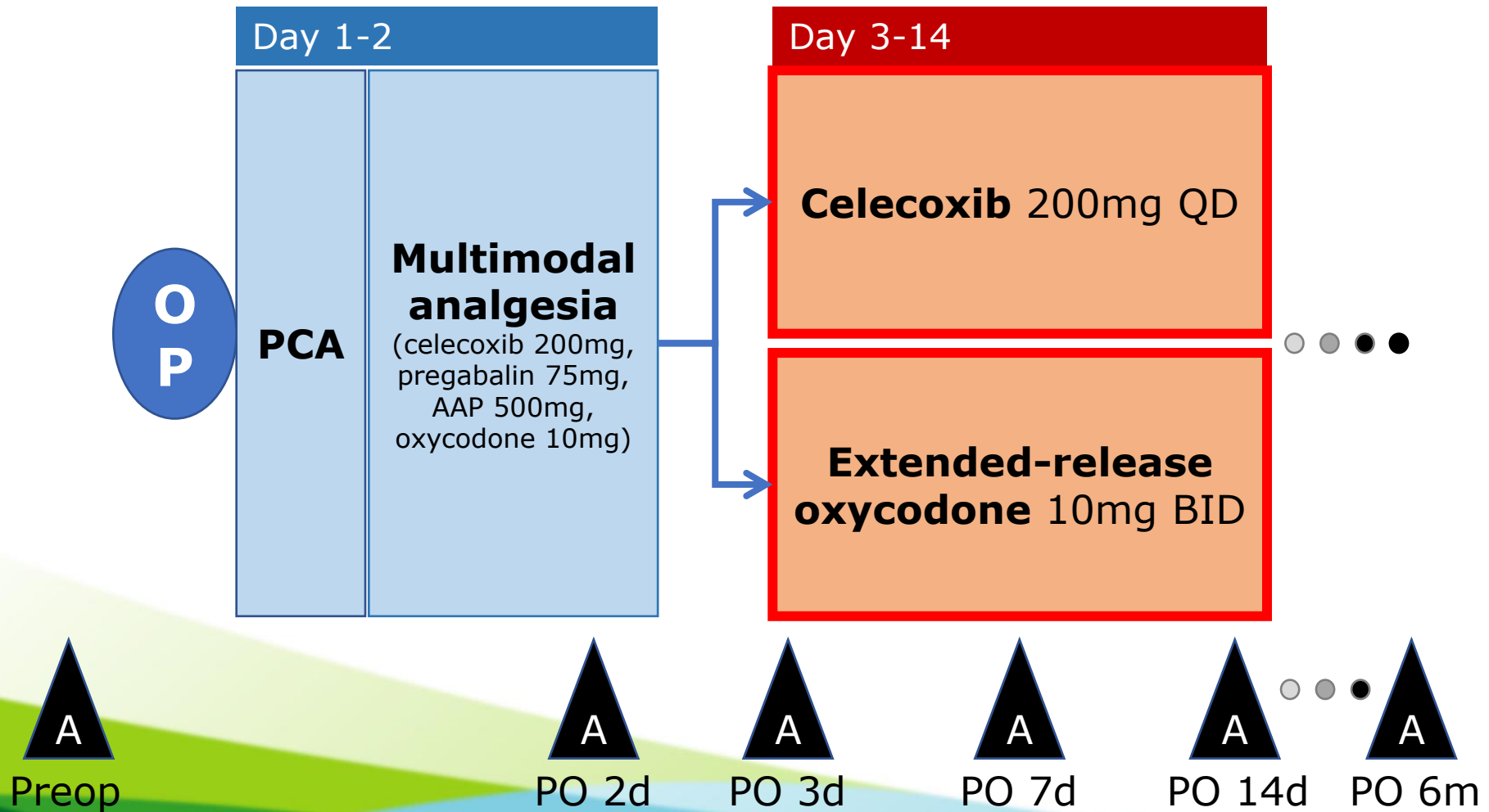
# Materials and Methods

- **Prospective, randomized, open-label clinical trial at a single institute**
- Inclusion criteria
  - > 18 years
  - Single-level lumbar stenotic condition
  - Failed conservative treatment > 6W
- Exclusion criteria
  - Recurrent disc herniation
  - Recent history of intervention
  - Preoperative opioid use
  - Other clinical pain conditions
  - Contraindication of study drugs

***Microscopic unilateral  
partial laminectomy  
with/without  
discectomy***



# Study design

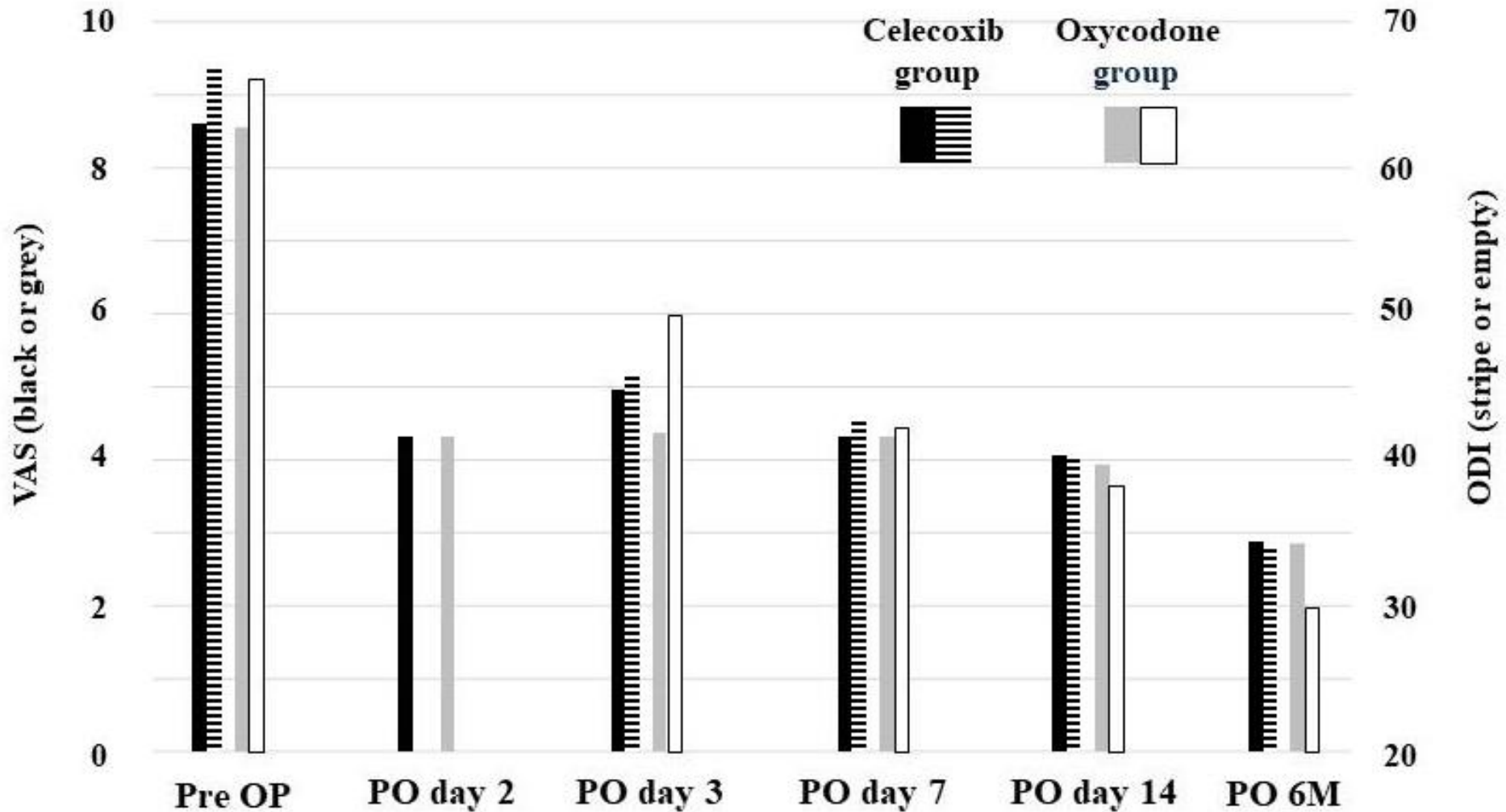


\*A: assessment

# Results

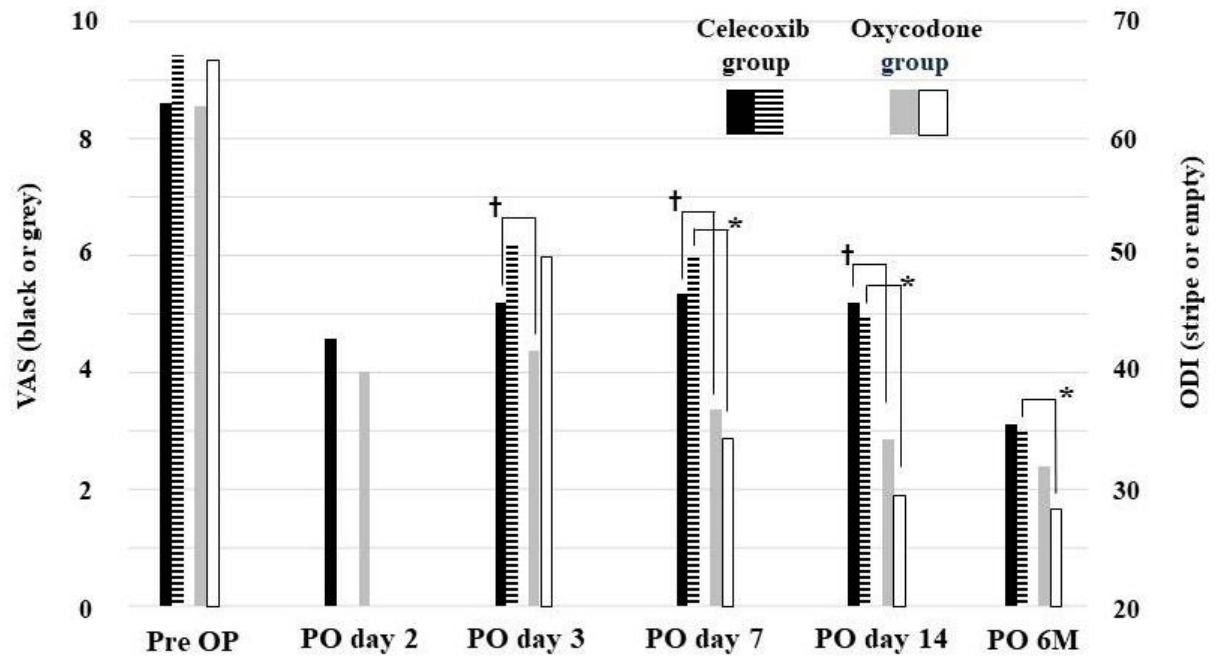
	Celecoxib group (46)	Oxycodone group (47)	P-value
Age (year)	63.45 ± 10.91	62.89 ± 11.03	0.495
BMD	-3.14 ± 0.86	-3.15 ± 0.82	0.648
Sex (M : F)	21 : 18	18 : 29	
BMI (kg/m <sup>2</sup> )	19.33 ± 6.19	21.26 ± 5.51	0.872
Charlson Index	4.24 ± 1.26	3.98 ± 0.87	0.540

# All patients

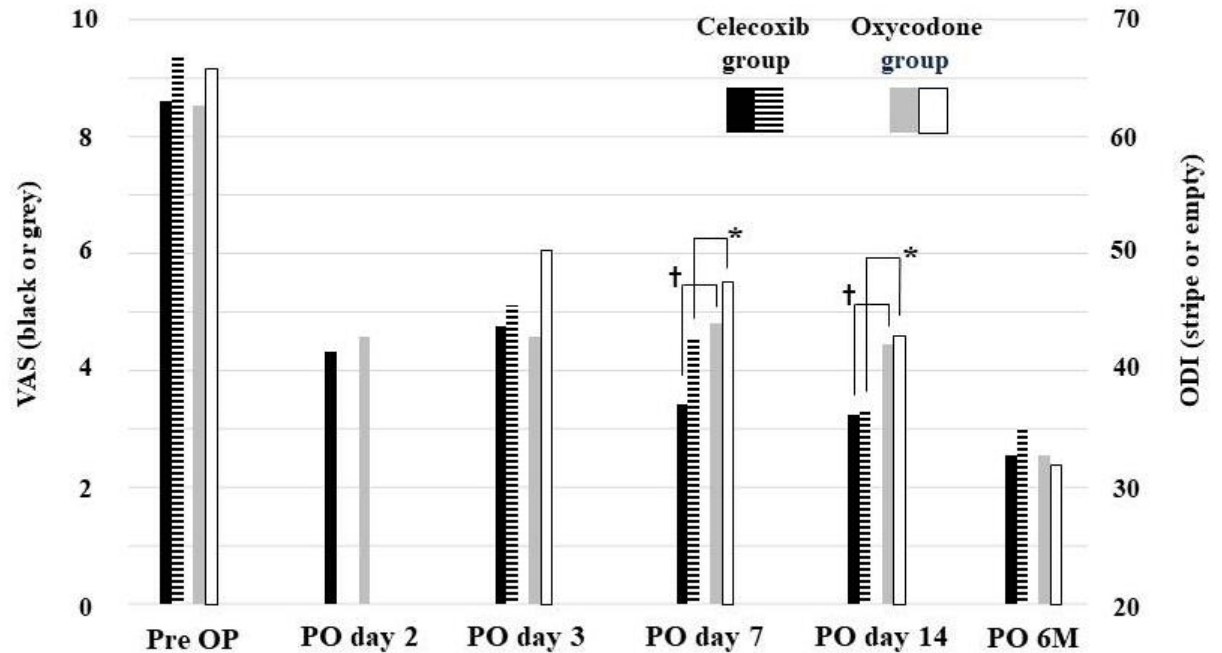




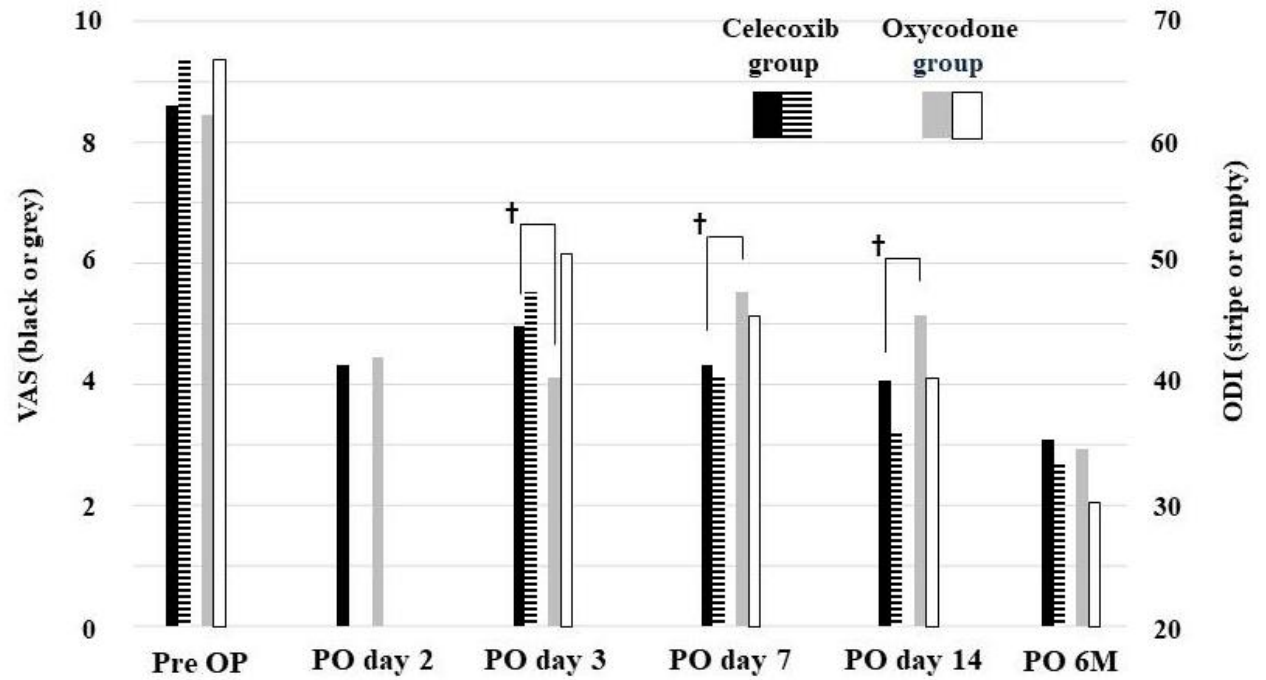
# Male



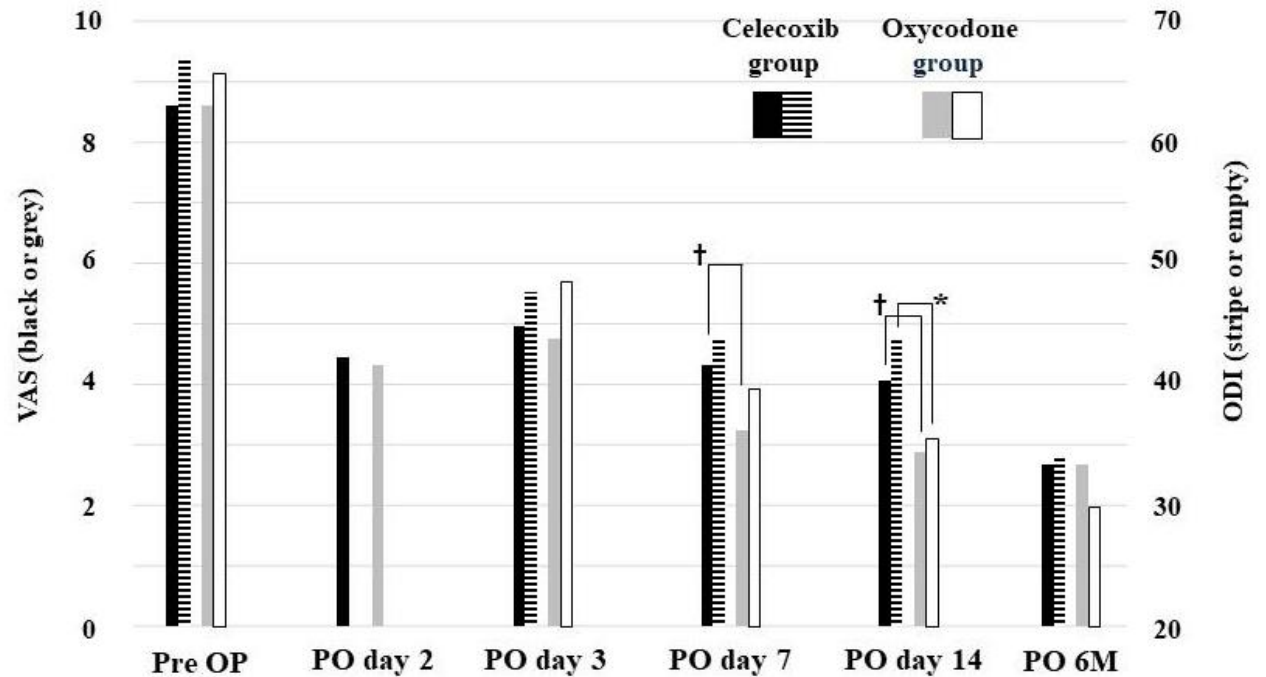
# Female



# <65years



# >65years



# Complications

	<b>Celecoxib group (46)</b>	<b>Oxycodone group (47)</b>	<b>P-value</b>
<b>Gastrointestinal</b>			
ulceration/bleeding	0	0	
indigestion	5	6	0.515
epigastric pain	5	3	0.345
constipation	1	8	0.016
dry mouth	2	6	0.141
<b>Cardiovascular</b>			
Hypotension	0	0	
MI/stroke	0	0	
<b>Dizziness</b>	2	6	0.141
<b>Nausea/Vomiting</b>	1	8	0.016
<b>Drowsiness</b>	2	5	0.226

# Conclusion

- Both of celecoxib and oxycodone were effective for acute pain management after spine surgery.
  - However, each drug showed different efficacy according to age and gender suggesting the need for postoperative pain management tailored to the patient's characteristics.
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