

**Table 1. Overview of article relevant to the incidence of rebound pain**

Authors (year of publication)	Type of study	Participants	Block type	Incidence of rebound pain	Strategy used to avoid rebound pain	Results
Barry G, et al (2021)[4]	Retrospective cohort	n = 972	PNB	49.60%	NR	Rebound pain was associated with young patients, female gender, surgery that included bone, and lack of use of perioperative IV Dexamethasone
Admassie, et al (2022)[7]	Transversal study	n = 384	PNB	61.70%	NR	Rebound pain was associated with presurgical pain, type of surgery, premedication with dexamethasone, and postoperative use of opioids and NSAIDs
Jen, et al (2022) [12]	Retrospective cohort	n = 1,365	Popliteal sciatic block	50.00%	NR	Predictors for rebound pain were lack of use of dexamethasone, bone surgery groups, and female sex
Fang J, et al (2021) [13]	Randomized clinical trial	n = 132	PNB with ropivacaine + dexamethasone, compared with ropivacaine	11% vs. 48.8%	Dexamethasone 8 mg	Adding dexamethasone decreases rebound pain, delays the onset of pain perception, and has a lower pain rate
Morita S, et al (2020)[14]	Randomized clinical trial	n = 54	Interscalene brachial plexus block with evobupivacaine + dexamethasone, compared with levobupivacaine	NR	Dexamethasone 3.3 mg	Adding dexamethasone prolongs the duration of the block and decreases rebound pain
Zhou Qi, et al (2022)[15]	Randomized clinical trial	n = 78	Femoral block + transauricular vagus nerve stimulation, compared with femoral block	17.9% vs. 41%	Transauricular vagus nerve stimulation	Vagus nerve stimulation reduces the incidence and duration of rebound pain, the need for additional postoperative analgesics, and the number of complications
Korkusuz, et al (2023)[10]	Randomized clinical trial	n = 60	Ilioinguinal/iliohypogastric block with or without intravenous dexamethasone	6.67% vs. 50%	Dexamethasone 5 mg	Adding dexamethasone resulted in less rebound pain and less opioid consumption
Mingyang Gao, et al (2023)[16]	Randomized clinical trial	n = 130	Popliteal sciatic and adductor canal block with or without intravenous dexamethasone	15% vs. 40%	Dexamethasone IV	Reduces rebound pain, prolongs the effect of the block and improves quality of life
Zhu, et al (2020) [17]	Randomized clinical trial	n = 76	Ketamine + perineural ropivacaine, intravenous ropivacaine + ketamine	NR	Perineural or intravenous ketamine	Adding perineural ketamine decreased pain scores and has less rebound pain. Intravenous ketamine has no benefit
Et, et al (2023)[6]	Randomized clinical trial	n = 60	General anesthesia with or without interscalene block	73.3% vs. 30%	Dexamethasone 5 mg IV	Adding IV dexamethasone decreases rebound pain
Jong-Hyuk Lee, et al (2023)[18]	Randomized clinical trial	n = 66	Single block with ropivacaine, single block + continuous infusion via perineural catheter and single block + fentanyl PCA	NR	PCA	Adding PCA decreases rebound pain
Hun Ko S, et al (2021)[19]	Non-inferiority randomized clinical trial	n = 85	Multimodal block (suprascapular, axillary and articular branch of the lateral pectoralis) compared with interscalene block	20% vs. 42.9%	NR	Multimodal block is not inferior to interscalene block in terms of pain control after arthroscopy, it is associated with low levels of rebound pain, use of IV-PCA and muscle weakness
Ding DY, et al (2015)[20]	Randomized clinical trial	n = 50	Popliteal sciatic block with continuous infusion compared with single injection	NR	Regional anesthesia in continuous infusion	Continuous infusion for popliteal sciatic nerve block reduces rebound pain and opioid consumption
Hyun Jung Lee, et al (2023)[21]	Randomized clinical trial	n = 71	Intravenous dexamethasone compared to perineural, after interscalene block	20% vs. 44.4%	Dexamethasone IV	Intravenous administration of dexamethasone has less rebound pain than perineural administration
Namdari S, et al (2018)[22]	Randomized clinical trial	n = 78	Local application of liposomal bupivacaine in the surgical wound after an interscalene block	NR	Liposomal bupivacaine at surgical site	The group that was administered bupivacaine at the surgical site had more opioid use and didn't demonstrate a reduction in postoperative pain, apparently having a "double rebound" effect
Touil N, et al (2023) [23]	Retrospective cohort	n = 118	Intravenous dexamethasone after brachial plexus block at axillary level	23% vs. 47%	Dexamethasone IV	Intravenous dexamethasone at low and high doses (< 0.1 mg/kg and > 0.1 mg/kg) reduces rebound pain after an axillary plexus block
Goldstein RY, et al (2012)[11]	Randomized clinical trial	n = 51	General anesthesia with or without popliteal block	62.80%	NR	The popliteal block has better pain control in the first 12 hours, however, at 24 hours it presents significantly greater rebound pain than without the block
Holmberg A, et al (2020)[24]	Randomized clinical trial	n = 51	Intravenous dexamethasone after brachial plexus block	NR	Dexamethasone IV 16 mg	Adding intravenous dexamethasone has less rebound pain
Thillainadesan T, et al (2019)[8]	Retrospective cohort	n = 67	Interscalene brachial plexus block	80%	NR	Open procedures, young patients and lack of use of PCA were associated with greater rebound pain
Rogero R, et al (2019)[25]	Randomized clinical trial	n = 69	Popliteal block with continuous infusion compared to single injection	NR	Regional anesthesia in continuous infusion	Continuous infusion for popliteal nerve block did not decrease rebound pain

PNB: peripheral nerve block; PCA: patient-controlled analgesia; NR: not reported.