

Postoperative pain treatment

The goal of postoperative pain management is to relieve pain while keeping side effects to a minimum. After hundreds of years of advances, the mainstay of pain therapy is still the opioids. While they are very effective analgesics, opioids also carry with them many undesirable side effects: sedation, respiratory depression, nausea and vomiting, hypotension and bradycardia, pruritus, and inhibition of bowel function. The treatment of complications such as nausea and pruritus may include the administration of antihistamines, which have an additive effect on sedation and respiratory depression.

Perioperative pain assessment and management in neurosurgical patients varies widely across the globe. There is lack of data from developing world regarding practices of pain assessment and management in neurosurgical population.

The aim of a study was to compare the effects of pregabalin, betamethasone, and ibuprofen on postoperative pain management in patients with single-level lumbar disc herniation surgery.

The present study was a randomized prospective study conducted at a tertiary university hospital. Sixty patients were equally divided into three groups based on whether they were treated with pregabalin (Group 1), ibuprofen (Group 2), and betamethasone (Group 3). Patients whose pre-operative back and leg pain was evaluated using a visual analog scale (VAS) and the Oswestry scale were administered 100 mg tramadol hydrochloride during surgery. The treatment efficiency was compared by assessing post-operative VAS scores at 24 h, 1 week, and 1 month after and Oswestry scale at 1 month after surgery.

The VAS scores for pre-operative and post-operative back pain did not show significant differences between the results at 1 week and 1 month in any group. There was no significant drug efficacy between post-operative week 1 and post-operative month 1, except for pregabalin; an early effect was less frequently observed in the pregabalin group than in the ibuprofen and betamethasone groups.

Although the three groups treated for single-level lumbar disc herniation received similar post-operative analgesia at the end of post-operative month 1, the decrease in VAS scores for back and leg pain was significant in the betamethasone group in the 1st post-operative 24 h and post-operative month 1 ¹⁾.

A survey aimed to capture practices and perceptions regarding perioperative pain assessment and management in neurosurgical patients among anesthesiologists who are members of the Indian Society of Neuroanaesthesiology and Critical Care (ISNACC) and evaluated if hospital and pain characteristics predicted the use of structured pain assessment protocol and use of opioids for postoperative pain management.

A 26-item English language questionnaire was administered to members of ISNACC using Kwiksurveys platform after ethics committee approval. This outcome measures were adoption of structured

protocol for pain assessment and opioid usage for postoperative pain management.

The response rate for this survey was 55.15% (289/524). One hundred eighteen (41%) responders informed that their hospital setup had a structured pain protocol while 43 (15%) responders reported using opioids for postoperative pain management. Predictors of the use of structured pain protocol were private setup (odds ratio [OR] 2.64; 95% confidence interval [CI] 1.52-4.59; $p=0.001$), higher pain intensity (OR 0.37; 95% CI 0.21-0.64; $p<0.001$) and use of pain scale (OR 7.94; 95% CI 3.99-15.81; $p<0.001$) while availability of structured pain protocol (OR 2.04; 95% CI 1.02-4.05; $p=0.043$) was the only significant variable for postoperative opioid use.

Less than half of the Indian neuroanesthesiologists who are members of ISNACC use structured protocol for pain assessment and very few use [opioids](#) for [postoperative pain](#) management in neurosurgical patients ²⁾.

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Bilgin E, Ökten AI. Post-operative pain management for single-level lumbar disc herniation surgery: A comparison of betamethasone, ibuprofen, and pregabalin. *Agri*. 2021 Apr;33(2):89-95. English. doi: 10.14744/agri.2020.82335. PMID: 33913134.

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