

**ABSTRACT NO. : ABS3660****Comparative study of perioperative effect of premedication with melatonin versus pregabalin total hip arthroplasty under spinal anaesthesia.****Akash Mishra**

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**Background & Aims:** The aim of the present study was to compare the efficacy of melatonin and pregabalin in reducing perioperative anxiety and postoperative pain along with effects on onset and duration of spinal anaesthesia and level of sedation in patient undergoing total hip arthroplasty under Spinal anaesthesia

**Methods:** The present study was a randomised double blind placebo controlled study and included 96 American society of Anesthesiologists (ASA) I and II patients of either sex, aged between 30 to 60 years scheduled for total hip replacement under spinal anaesthesia. The patients were randomly allocated to one of three groups of 32 each to receive placebo (group 1), melatonin 6 mg (group 2), pregabalin 150 mg (group 3) orally 2 hours before spinal anaesthesia. Perioperative anxiety using Beck anxiety inventory, postoperative pain along with onset and duration of spinal anaesthesia and sedation were assessed at multiple time points in the first 24 hours after surgery.

**Results:** Perioperative anxiety scores were significantly decreased in group 2 (11.08) and group 3 (7.26) when compared to group 1 (17.25) and significant decrease in group 3 when compared to group 2. Post operative Visual analogue scale VAS scores were decreased in group 2 and 3 when compared to group 1. Request for rescue analgesic during the first post operative 24 hours were lower among groups 2 and 3. The duration of sensory and motor blockade was prolonged in groups 2 and 3.

**Conclusion:** Premedication with single dose of melatonin 6mg and pregabalin 150mg 2 hours before surgery decreases perioperative anxiety and postoperative pain in patients undergoing total hip arthroplasty under spinal anaesthesia and pregabalin has an added advantage of anxiolysis when compared to melatonin.

	Group 1 (Mean+SD)	Group 2 (Mean+SD)	Group 3 (Mean+SD)	P
Anxiety 2 h before	16.25+1.16	15.94+1.54	16.16+1.5	0.705
Anxiety in OT	17.05+1.26	10.00+0.80	6.03+0.967	0.000*
Anxiety before Spinal	17.25+1.05	11.08+0.6	7.26+0.7	0.000*
Anxiety after Surgery	10.13+1.12	6.41+0.56	3.13+0.660	0.000*
Onset of Sensory Effect (min)	4.24+0.05	4.11+0.03	4.09+0.025	0.000*
Duration of Spinal Anaesthesia (min)	211.13+12.25	247.22+6.07	267.94+6.7	0.000*
Onset of Motor Effect (min)	8.39+0.098	8.19+0.075	7.9+0.285	0.000*
Duration of Motor Blockade (min)	165.25+5.8	179.78+5.7	194.84+7.03	0.000*

**KEYWORDS:** Premedication, Melatonin, Pregabalin, Total hip arthroplasty, Spinal anaesthesia

### References

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