PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330
International Journal of
HUMAN GENETICS

Full text open access online (Since 2001)

PRINT: ISSN 0972-3757 ONLINE: ISSN 2456-6330
Int J Hum Genet, 25(1): 42-50 (2025)
DOI: 10.31901/24566322.2025/25.01.905

Study on the Impact of Timing of Surgery Under General Anesthesia on Postoperative Sleep Quality

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KEYWORDS Daytime Surgery. General Anesthesia. Melatonin. Night Surgery. Sleep Quality

ABSTRACT Patients undergoing elective laparoscopic abdominal surgery were enrolled from January to December 2022 and randomly assigned 1:1 to daytime surgery (8:00 to 12:00 hours) and nighttime surgery (18:00 to 22:00 hours). Sleep quality was assessed using the Pittsburgh Sleep Scale (PSQI), and melatonin concentrations were measured in urine. The dose of remifentanil and propofol in the daytime group was higher than that in the night group, and the difference was statistically significant ($P<0.05$). Compared with the daytime group, PSQI in the night group was higher at 3 days after surgery, and urine melatonin concentration was lower at 1 and 3 days after surgery ($P<0.05$). Compared to the daytime group, the nighttime group also showed a significant increase in SpO2, MAP, and HR levels. Compared to the daytime group, the nighttime group showed a statistically significant decrease in the occurrence rate of difficulty falling asleep, early awakening, feeling unwell after waking up, interrupted sleep, and urinary retention.