Incidence and risk factors of emergence agitation after general anesthesia at the postanesthetic care unit in Maharaj Nakorn Chiang Mai hospital: A prospective observational study

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Emergence agitation during the immediate post anesthetic period is common with the incidence of 4.7 -21%[1,2,3,4]. It occurs more common in children than in adults. The etiology remains unclear. Previous studies showed emergence agitation was associated with breast and abdominal surgery[1], long duration of surgery[1], preoperative use of benzodiazepines[1], pain[2,4], inhalation anesthesia(sevoflurane)[4,6] and presence of a tracheal tube or a urinary catheter.[2,4]

Objective: to determine incidence and risk factors associated with emergence agitation after general anesthesia in adult surgical patients

Method: The design was a prospective observational study which was conducted in 556 adult patients undergoing general anesthesia for surgery at Maharaj Nakorn Chiang Mai hospital, Thailand, during November 2015 to February 2016. During recovery from general anesthesia, the patients were assessed by the Riker sedation-agitated scale. The emergence agitation was defined as the presentation of Riker sedation scale from 5 to 7 (agitated, very agitated, dangerous agitation). The SPSS version 22 was used to analyze the data by using univariable and multivariable analyses (multiple logistic regression analysis) with the statistical significant level of 0.05.

Result: The emergence agitation occurred in 38 patients (6.8%). From the univariable analysis, factors associated with the emergence agitation were age, male, history of alcohol, postoperative pain, spine surgery, urologic surgery, postoperative pain, and retained urinary catheter. The multivariable logistic regression analysis demonstrated the significant effect of gender (male), postoperative pain and the presence of retained urinary catheter on the emergence agitation in the immediate recovery period with the odd ratios (95% CI) of 5.22 (2.29, 11.90), 5.43 (2.66, 11.66), and 2.83 (1.30, 6.16); respectively.

Conclusion: The finding indicates that the emergence agitation could occur in adult surgical patients during immediate recovery from general anesthesia. Adequate pain control and preoperative information regarding the retained urinary catheter could be strategies to ameliorate emergence agitation in the post anesthesia care unit.

Kew words: emergence agitation, anesthesia, recovery

Reference:

