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SCHOOL OF MEDICINE

ANESTHESIOLOGY DEPARTMENT

Thesis for obtaining the specialty degree in Anesthesiology

Title:

Comparing the effect of Labetalol vs. Morphine on Controlling Blood Pressure and Pulse Rate during Emergence from Anesthesia after Craniotomy

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Abstract

Background: Emergence from anesthesia is associated with sympathetic stimulation, increase in pulse and blood pressure. There are different methods but the most appropriate method should be selected regarding the differences in nationalities. This study aimed to compare the efficacy of morphine and labetalol in controlling blood pressure and pulse during emergence from anesthesia in brain tumors craniotomy.

Materials and methods: This study was conducted at Al-Zahra hospital of Isfahan in on 60 patients suffering from brain tumor candidate for craniotomy and randomly classified into 2 groups of 30. One group received labetalol with dose of 10mg over 10 minutes from 45 minutes before finishing dressing and then 0.75mg/min until 35 minutes later; another group received morphine in bolus dose of 0.1mg/kg during 2-3 min. Blood pressure and pulse were measured every 10 minutes over 40 minutes. After operation, they were measured every 5 minutes over 15 minutes.

Results: The morphine group, had higher systolic (133.3±18.8) and diastolic blood pressure (87.1±13.6) ($p=0.021$ and 0.028 respectively) at extubation and during 45min before dressing, the diastolic blood pressure was significantly higher in compares with labetalol (75.3±10.5) ($p<0.05$).And extubation time was significantly shorter in labetalol group (7.7±0.84)($p<0.001$). Pulse had no significant difference in both groups. In labetalol group, blood pressure and pulse fluctuations were more stable.

Conclusion: In conclusion administration of labetalol 45 minutes before finishing dressing can significantly control blood pressure during emergence from anesthesia and also shorten the time of extubation during emergence in patients undergoing craniotomy.

Keywords: craniotomy, labetalol, morphine.

Resources:

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