

## ABSTRACT

Propofol has been used widely for anesthetic induction and maintenance purposes, however propofol has unpleasant effect which could produce pain in injection site either post-induction hypotension. Some methods have been used in order to reduce this pain as the velocity of injection, either addition of lidocaine and ketamine. Ketamine could mitigate pain incidence in propofol injection.

This research aimed on comparing administration of 0,2 mg for each kilo body weight Ketamine and 2 ml 1 % Lidocaine in order to reduce post propofol injection pain.

Randomized Controlled Trial (RCT) with double blinded methods have been used in this research. This research underwent in 134 patients, age ranged between 18-50 years old, American Society of Anaesthesiologists (ASA) I and II physical status labelled patients who's planned to elective operation in the manner of general anaesthesia in Dr. Sardjito Hospital, Yogyakarta. The subjects divided into two groups, Group A belonged to patients who have given to them 2 mg for each kilo body weight Ketamine while 2 ml 1 % Lidocaine have been given for Group B. All of these patients applied with 18 G needle radial vein intra venous catheterization. For both of the groups, the drugs have been giving via intra venous which previously dammed by 50 mmhg pressure. After one of the drug has injected, the pressure maintained for 60 seconds and soon after the tourniquet has deflated, propofol then injected. Pain measurement due to propofol injection is done based on pain scoring, with 0-3 scales. Then, anesthetic maintenance proceed as planned.

This research resulted on there was significant differentiation ( $p < 0,05$ ) on both research groups (0,2 mg for each kilo body weight Ketamine and 2 ml 1 % Lidocaine) toward pain response which measured after the patients injected with propofol. There were 38(56,7%) free pain patients while for Group B there were 26 patients (38,8 %).

Our conclusion 0,2 mg for each kilo body weight Ketamine with tourniquet giving better result instead of 2 ml 1 % Lidocaine in order reducing post propofol injection pain.

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**Keywords:** Ketamine, lidocaine, propofol, injection pain.