

A Comparative Study Of Ondansetron And Lignocaine To Alleviate The Pain Of Injection Propofol

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I. Introduction:

Propofol is the most commonly used agent for inducing general anaesthesia for patients undergoing surgery under GA. It's chemical composition has long chain fatty acids, which cause the patient to experience a burning, aching, searing pain at local site of injection, rendering discomfort to the patient.

Ondansetron being a 5-HT₃ serotonin receptor antagonist usually used for preventing nausea and vomiting, also has sodium channel blocking action on peripheral pain receptors.

Lignocaine is an amide type local anaesthetic used for local anaesthesia. It acts by causing nerve blockade and stabilizing the neuronal membranes by inhibiting ionic fluxes needed to initiate and conduct a nerve impulse. Acts on sodium channels located on the internal surface of nerve cell membranes.

This study was done to compare the efficacy of ondansetron and lignocaine to alleviate the pain of injection propofol, and to compare the incidence of post operative nausea and vomiting (PONV), and hemodynamic variability.

II. Aim:

To conduct a comparative study of Ondansetron and Lignocaine to alleviate the pain of injection Propofol.

III. Objectives:

1. To compare the efficacy of 4mg Ondansetron and 40mg Lignocaine for reducing the pain of propofol injection as a primary outcome.
2. To compare the incidence of post operative nausea and vomiting.
3. To compare haemodynamic variability of Ondansetron and Lignocaine.

IV. Materials And Methods:

A total of 60 patients were randomly allocated into two groups (30 in each group).

Group O- Patients will receive 4mg Ondansetron

Group L- Patients will receive 40mg Lignocaine

Pre-treatment drugs were administered in 2ml solution over 5 seconds and venous occlusion at the level was done for 60 seconds.

1/4th of the induction dose of propofol was injected after releasing the occlusion and pain was rated according to Visual Analog Scale of pain scaling.

After assessment remaining dose of propofol was given.

During first half an hour the hemodynamic parameters were observed at intervals of 5, 10, 15, and 30 minutes, and noted.

Post operative nausea and vomiting and other side effects was evaluated after the procedure.

V. Result

The incidence of pain after the study showed that the pain was lowest in Group-O as compared to Group-L.

The median pain score in Group L was 2.5 and Group O was 6.3.

Post operative nausea and vomiting was seen in 2 patients in group L whereas, 0 in case of group O.

No significant hemodynamic changes were observed in both the groups.

	Vas Score	Hr	Sbp	Dbp	Spo2	Rr	Ponv	Adverse Effects
Lignocaine	2.5	77.3	120.23	70.02	99	13	2	2
Ondansetron	6.3	74.3	124	68	99	13	0	2

VI. Conclusion:

Thus from the current study we conclude that...

Pre-treatment with Lignocaine significantly reduced the pain induced by propofol when compared to Ondansetron. Ondansetron was more effective in reducing PONV as compared to Lignocaine. Lignocaine was found equally safe as Ondansetron, when side effects were compared. There were no significant Hemo-dynamic changes (BP & Pulse), in both the groups.

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