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**Pain perception of patients after administration of local anesthetic before intravenous cannulation in emergency department of a tertiary care center in India**

Arif Ishtiq Mattoo, Indraneel Dasgupta, Farhat Anjum, Indranil Mitra and Saptarshi Saha  
Institute of Emergency Medicine Peerless and B K Roy Research Center, India

**Introduction:** Local anesthetic to relieve the pain of intravenous cannulation is widely used in pediatric and some anesthetic practice. The application and the usage in patients presenting to emergency department is scarce.

**Aim:** To study the applicability of local anesthetic before inserting intravenous cannula in patients presenting to the emergency department.

**Methodology:** This is a double blinded placebo controlled randomized study conducted on patients presenting to the emergency department. Total sample size was 450 and was divided into three equal groups viz. Group A / study group (infiltration with local anesthetic, lignocaine 1% 0.5 ml using 27 gauge needle and insulin syringe.), Group B/ control I Group (infiltration with normal saline 0.5 ml using 27 gauge needle and insulin syringe.) and Group C/ control II Group (no infiltration). The hemodynamic changes pre and post cannulation and verbal pain rating scores were recorded by

blind observers in all groups.

**Results:** The post cannulation heart rates of the study group ( $91.77 \pm 24.66$ ) control II ( $98.03 \pm 23.18$ ) and control I ( $96.81 \pm 21.87$ ) groups differed significantly with P value 0.0485 ( $< 0.05$ ). Pain scores in control-I and control-II groups do not vary significantly with P value 0.111. Post cannulation pain is having significant positive correlation with Increase in Heart rate ( $r = 0.671$ , P value  $< 2.2e-16$ ) and also Increase in Diastolic Blood Pressure ( $r = 0.476$ , P value  $< 2.2e-16$ ). Post cannulation pain was having significant positive correlation with increase in Heart rate ( $r = 0.671$ , P value  $< 2.2e-16$ ) and also increased diastolic blood pressure ( $r = 0.476$ , P value  $< 2.2e-16$ ).

**Conclusion:** Intravenous cannulation can be made pain free with patient satisfaction and hemodynamic stability if carried out with prior local anesthetic infiltration.

**Biography**

Arif Ishtiq Mattoo completed mbbs from bangladesh in 2009 and post that was working in indian army as medical officer and then was working in medanta medcity gurgaon india. then as senior resident in hindu rao hospital delhi. presently final year resident in masters in emergency medicine institute of emergency medicine peerless hospital and b.k roy research center kolkata india in collaboration with george washington university usa. 3 publications in national and international journals.

dr.arifmattoo@hotmail.com

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