26358 - COMPARSION OF EFFECT OF EPHEDRINE AND LIDOCAINE ON PAIN DURING INJECTION OF PROPOFOL

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One of the unwanted complications of propofol is pain during injection of it; the incidence of which ranges from 28%- 90%. Ephedrine which acts directly at both α_1 and α_2 receptors and indirectly by releasing endogenous norepinephrine, has been used for many years to counteract hypotension and bradycardia during anesthesia. Some investigators reported that this drug is able to reduce the pain associated with injection of propofol.

The aim of this study was assessment and comparison the efficacy of ephedrine pre-treatment in prevalence and intensity of the pain during propofol injection.

In this randomized, prospective, double blinded, placebo-controlled clinical trial, 150 patients 20 to 60 years old were randomly assigned to one of three groups: 1- P group (2 ml normal saline), 2-L group (40 mg lidocaine), and 3- E group 50 mcg/kg ephedrine). Immediately after the injection of the study drug, propofol 2 mg/kg with injection rate of 0.5 ml/sec was injected to the same vein. Pain severity was measured by Visual Analogue Scale (VAS) that was instructed to the patient prior to trial.

There was no statically significant difference between patients in three groups regarding sex and age ($p= 0.72$). Furthermore, severity and prevalence of pain had no significant difference between men and women ($p=0.58$). Severity of pain between three groups had significant values (average VAS: P=48.00, L=29.06, E=28.66) ($p< 0.0001$). The incidence and intensity of pain was less in lidocaine and ephedrine groups than in the placebo ($p<0.0001$).

We concluded that pre-treatment with a small dose of ephedrine (50 mcg/kg) reduced the incidence and intensity of propofol- induced pain as much as lidocaine.