INTRODUCTION

Despite its many positive effects and unique properties, propofol can cause intense pain upon injection. One method used to prevent pain is the association of propofol and lidocaine, a local anesthetic. This is not a risk-free method, and for that reason, the need of its use is questioned.

OBJECTIVE

Evaluate the need of using lidocaine on the prevention of propofol injection pain on anesthetic induction.

METHOD

A double-blind, randomized, placebo-controlled trial was carried out with data double-blinded collected from 970 patients randomly distributed equally in 2 groups: Group 1 received lidocaine before propofol and Group 2 received saline before propofol.

All patients had their antecubital fossa vein punctured, where 2% lidocaine (1mg/kg) was injected prior to propofol in Group 1 patients, or saline solution, in the same volume, in Group 2. They were interrogated until the loss of consciousness about the presence or not of pain to the injection, and after awakening, using the Visual Analogical Scale of Pain.

The incidence of pain in Group 1 and in Group 2 was calculated. Bivariate analyzes were performed to test the homogeneity of proportions between the groups using the chi-square test, with p<0.05 pointed to statistically differences. Multivariate analysis was performed to observe the independence of associations through Cox Regression. Relative risks (RR) and their respective 95% confidence intervals (95% CI) were estimated.

Also, measures of effect were estimated: absolute risk reduction (RAR), relative risk reduction (RRR) and number needed to treat (NNT).

RESULTS

The incidence of pain in Group 1 was of 5.0% (95% CI 3.63, 6.37), while in Group 2 it was of 14.2% (95% CI 12.0, 16.4) with a RR of 0.35 (95% CI 0.22;0.56) (p <0.001). The RAR was 9.2%, while the RRR was estimated at 36% and the NNT was 10.9.

CONCLUSION
It was found a statistically lower incidence of pain in the lidocaine group as compared with the placebo group. However the NNT was 10.9, meaning that lidocaine, although efficient, would have to be used in 11 patients to prevent pain in only one.