

**Comparison of two topical piroxicam and EMLA cream on fistula  
cannulation pain in hemodialysis patient**

**A Thesis Presented for the Degree of Master of Sciences**

**In Critical Care Nursing**

**By: Mahdi Mohseni**

**Supervisors:**

**Faride Malekshahi**

**Advisor:**

**Dr. Babak Hadian**

**Farzad Ebrahimzadeh**

**Lorestan University of Medical Sciences  
Faculty of Khorramabad Nursing & Midwifery**

## Abstract

**Background:** Patients with end-stage renal failure, recurrent fistula cannulation pain as severe stress from their life and in the treatment of major concern to know. Nurses as one of the main targets of their actions, they have the duty to relieve the pain. Accordingly, this study was conducted to determine the effectiveness of two topical piroxicam and EMLA on fistula cannulation pain intensity in Hemodialysis patients.

**Materials and Methods:** This study is a clinical trial was conducted on 75 patients undergoing dialysis unit in Khorramabad Shohada hospital in 2013. Patients were randomly divided to three groups: A Group (piroxicam), B Group (EMLA) and C Group (placebo). Data collection tools included three sections: demographic information, Visual Analogue Scale (VAS) and a checklist for possible side effects of the drugs. Pain intensity during fistula cannulation in three groups on two occasions, before and after intervention, were measured. The collected data were then analyzed using Mann-Whitney and Kruskal-Wallis tests and were used spss19 software.

**Results:** The median pain intensity before and after the intervention in three groups, was significantly differenced ( $p < 0/001$ ). The highest median pain intensity reduction was in the EMLA, piroxicam and placebo group respectively. In addition, a short term side effect (blanching) in 16% of subjects was detected with EMLA group.

**Conclusion:** The results showed that EMLA cream and piroxicam gel was effective in reducing the pain intensity of fistula cannulation in dialysis patient. Therefore, our study recommends to use EMLA cream and piroxicam gel as a easy method with ability to work by patients, to reduction pain during fistula cannulation in dialysis patients.

**Keywords:** Piroxicam, EMLA, Pain, Cannulation, Fistula, Hemodialysis