

Study of severity of pain or discomfort associated with lignocaine jelly instillation in the male urethra during catheterisation

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Abstract

Background: The urethral instillation of gelly is a commonly performed task before various urethral procedures like per urethral catheterisation to relieve urine retention or monitor urinary output, but often it leads to pain and discomfort. During this process pain is generally experienced. To reduce the pain various medications are routinely practiced. However these drugs may cause abdominal discomfort. Instead Use of topical lignocaine gel reduces the pain associated with male catheterisation better. **Aims and Objectives:** To determine whether the temperature of 2 % lignocaine hydrochloride gel affects the initial discomfort during instillation into the male urethra may be associated with its instillation into the male urethra **Materials and Methods:** Sixty consenting men were randomized to receive 10 ml of 2 % lignocaine hydrochloride gel (Neon Lab. Ltd,mumbai) at 4 degrees C and 22 degrees C .The gel was instilled by one operator and the patients were then immediately asked to score the pain on Wong - Baker Faces pain rating scale. **Results:** Compared with the control group (at 22 degrees C),there was a statistically significant reduction in pain scores in the group receiving gel at 4 degrees C compared with the group at 22 degrees C ($p < 0.05$) **Conclusion:** Refrigerating the gel to 4 degrees C can significantly reduce the initial discomfort associated with instillation of 2 % lignocaine gel into the male urethra.

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so it is needed that clinicians may consider using noninvasive pain reducing strategies to decrease discomfort of gel instillation.^{3,4} So we investigated the effect of cooled lignocaine jelly to assess the discomfort intensity in rural patients.

MATERIALS AND METHODS

This present study was conducted in Surgery department at BKL Walawalkar Rural Hospital, Sawarde. This was a randomized clinical trial conducted on 60 patients from January 2019 to December 2019. The patients participated in the study were randomly divided into two groups. Group A (n=30) who received 2% lignocaine gel cooled at 4-degree Celcius temperature and group B who received 2% lignocaine gel kept at 22-degree Celcius temperature. After taking approval of the institutional ethics committee study was started. The informed consent was taken from the patients and healthy volunteers. The male patients aged 25-80 years were included in this study. The patients had different reasons to undergo urinary catheterisation. The patients were excluded if they had a history of hypersensitivity to lignocaine, cognitive deficit,

INTRODUCTION

The urethral instillation of jelly is a commonly performed task before various urethral procedures like per urethral catheterisation to relieve urine retention or monitor urinary output, but often it leads to pain and discomfort. During this process pain is generally experienced. To reduce the pain various medications are routinely practiced. However these drugs may cause abdominal discomfort. Instead Use of topical lignocaine gel reduces the pain associated with male catheterisation better.^{1,2} But in the past also it has been stated that there is greater pain during instillation and

intellectual disability, long term analgesic use. The Patients were educated on how to describe their discomfort or pain after inserting the jelly. Patients were randomized to group A (control) receiving cooled jelly and group B receiving jelly at 22 degree C. In the control group (group A), the 10 ml of lignocaine jelly cooled to 4 degree C was instilled and In other (group B) group ,10 ml of lignocaine jelly at 22 degree C was instilled in the urethra. The patients were then immediately asked to score the pain using WongBakers scale⁵ and it was recorded accordingly by nursing staff. The primary outcomes were differences of urethral pain or discomfort immediately after instilling jelly in the urethra between the two groups.

RESULTS

Sixty patients were included in this study. The patients participated in the study were randomly divided into two groups. Group A (n=30) who received 2 % lignocaine gel cooled at 4 degrees Celsius temperature and group B who received 2 % lignocaine gel kept at 22 degrees Celsius temperature. In group A, out of 30 patients who received 2 % lignocaine gel cooled at 4 degrees Celsius temperature, 28 patients (93.33%) showed no pain or discomfort and 2 patients (6.66%) had mild pain or discomfort, however no patients had moderate or severe pain or discomfort. In group B, out of 30 patients who received 2 % lignocaine gel kept at 22 degrees Celsius temperature, 25 patients (83.33%) experienced moderate pain or discomfort and 5 patients (16.66) had severe pain or discomfort.

Table 1:

Wong - Baker Faces Pain Rating Scale	Group A (n=30)	Group B (n=30)
No discomfort	28	0
Mild discomfort	2	0
Moderate discomfort	0	25
Severe discomfort	0	5

In our study the group A who received 2 % lignocaine gel cooled at 4 degrees Celsius temperature and instillation had much less pain compared to other group who received 2 % lignocaine gel kept at 22 degrees Celsius temperature. No significant adverse effects were recorded in our study in both groups. A single application of a topical lignocaine does not generally cause systemic side effects.

DISCUSSION

We have demonstrated that instilling cool jelly reduced the initial discomfort associated with jelly instillation in the male urethra. Preventing or decreasing the severity of pain

or discomfort associated with lignocaine jelly instillation in male urethra will be helpful or enhance the quality of life as the anxiety and distress of the patients are alleviated. In our study, the instillation of lignocaine jelly cooled to 4 degree C reduced the discomfort/pain associated with it. Safety issues have always been concerned with topical anesthetics. No significant adverse effects were recorded in our study. A single application of a topical lignocaine does not generally cause systemic side effects. All patients who received cooled lignocaine jelly demonstrated much less pain. control group who received lignocaine jelly at 22 degree C had higher discomfort or pain as compared to the group who received cooled jelly instillation. the responses of the patients . similar results have been quoted by in past studies^{6,7}.

CONCLUSION

The use of cooled 2% lignocaine jelly significantly reduces the initial pain or discomfort associated with its delivery into the male urethra. This may be recommended as a routine during catheterisation

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