

Letter to the editor

Re: Treatment of Renal Colic Using Intracutaneous Injection of Sterile Water

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To the editor. Pain relief of acute renal colic is usually achieved by administration of narcotics⁽¹⁾ because of its severity, which is comparable to labor pain.⁽²⁾ Although not asserted in the article, it seems that this trial⁽¹⁾ had been performed on "acute" renal colic as the pain score had been between 8 to 10 before treatment according to visual analogue scale. The investigators had explained to the patients that they were receiving either sterile water or saline for their pain and they had consented to enter the trial. At the end of the trial, 63% of the control group had suffered from pain for as long as one and a half hours.

It is asserted in ethical considerations of clinical trials that when there is a known therapy of value, it is unethical to use a placebo.⁽³⁾ Talking of acute renal colic, both normal saline and sterile water are considered "placebos". Nearly all the published papers on implementation of sterile water for pain relief are in areas in which either application of known analgesics is more harmful than beneficial, e.g. in labor pains,⁽⁴⁻⁹⁾ or there is no evidence based remedy e.g. chronic pains.^(10,11) From a methodological viewpoint, performance of this trial was justifiable in cases with any contraindications of narcotic administration (acute asthma, pregnancy,...). Otherwise, denying an analgesic from the patients for 90 minutes without any exclusion criteria (e.g. if the pain was not bearable, the patient being excluded) does not sound to be advisable.

Other methodological considerations like choice of statistical tests (Friedman two-way ANOVA by ranks or Repeated Measures in case of normality

of distributions) are discussed elsewhere,⁽¹²⁾ and thus not elaborated here.

Respectfully,

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Reply by Authors. Although using narcotics is the treatment of choice in renal colic, a proportion of patients do not respond and re-administration of narcotics or substitution by NSAIDs would be required. Repeated injection usually is done after a 30-minute interval. In addition, pain relief is achieved 10 to 30 minutes after intramuscular injection. Consequently, ethical conflict is not the issue; the effect of intramuscular morphine begins 10 to 30 minutes later and the optimum effect is achieved 30 to 60 minutes afterwards.

A pilot study was set up before doing this research and 10 patients with renal colic, not responded to narcotics and NSAIDs, volunteered to receive intradermal sterile water injection and in all of them, pain was relieved in a short time.

As a result, and according to its therapeutic

mechanism described in a series of studies,^(1,2,3,4) it seems that sterile water is justified to use. Furthermore, Bengtsson and colleagues have reported a similar study, which is published in Denmark.⁽⁴⁾

It is noteworthy that the proposal of this study has been approved by the dissertations and ethics committees of Mashhad University of Medical Sciences.

Eventually, we have not denied pain killers for 90 minute. All the patients were controlled for 90 minutes and, as mentioned in the article, two patients were excluded after 30 minutes and received narcotics due to severe pain and also one after 15 minutes.

Once again herein, we recommend using sterile water as the intradermal injection for the treatment of renal colic.

References

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