Author's response to reviews

Title: Parenteral lidocaine for treatment of intractable renal colic: Case series

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Version: 7 Date: 8 December 2010

Author's response to reviews: see over
Dear reviewers,

Thank you for your thoughtful review of our manuscript. We take your concerns seriously and have addressed them to the best our abilities. We asked from one of our English literature academic staff to edit the manuscript. If you think it need more edition please kindly give us extra time (by 30 December) to send it to http://www.biomedes.co.uk for extra edition. We address your comments point by point in Green and Red fonts as follow:

Q1. Case description: please clarify whether these patients had failed already to respond to opioids and NSAIDs. Is ultrasonography the best way of confirming the presence of a renal stone or is an x-ray necessary?

All included patients had received morphine and NSAIDs previously and were resistant to treatment. We use ultrasonography and presence of RBC in urine analysis for confirmation of renal stone based on two below references:

1) The initial diagnostic step in the management of suspected renal colic is urinalysis. Imaging is not needed in all patients with renal colic. If the signs and symptoms are atypical, the diagnosis is in question, the patient appears toxic, high-grade obstruction is suspected, or it is the patient’s first episode of flank pain, imaging should be performed. Ultrasonography is safe and easily performed. Although only 37 to 64% sensitive for detecting calculi, ultrasound examination shows hydronephrosis with a sensitivity of 85 to 94% and a specificity of 100%.


2) The clinical diagnosis of renal colic can be accurately established by ultrasound in approximately 70% of cases. Other radiological investigations remain essential as well. Ultrasonography should be performed quickly at presentation to diagnose urinary calculus obstruction and exclude other abdominal emergencies. Plain abdominal x-ray for kidney, ureter and bladder (KUB) used alone is of limited diagnostic value with a sensitivity of 53-62% and specificity of 67-69% for the detection of ureteral calculi. Ultrasound (US) is a cheap, noninvasive, safe technique, which can detect acute urinary tract obstruction with a sensitivity of 91-92% and a specificity of 90%. Majority of patients with renal colic can be early diagnosed in the clinic with the help of ultrasound.

References: 7) Arif Pervez and Ammar Arif Gomal: ROLE OF ULTRASOUND IN EVALUATION OF RENAL COLIC AND ASSESSMENT OF RISK FACTOR FOR RENAL CALCULI. Journal of Medical Sciences. 2007, 5, No. 1

Q2. References: there are none to back up the contention that IV lidocaine can relieve conditions such as neuropathic and postoperative pain. Addition of these references would be helpful.
According to reviewers’ comments we add following references:


Q3: The authors need to clarify the characteristic of the stone. Is it radiopaque?

KUB was requested for the patient resistant to lidocaine for further studies whereas graphies with previous preparation were requested for the patients having responded to lidocaine and results are presented in Table 2.

Q4: How about the fluid management status? The amount of the fluid administer could influence the severity of pain. This needs to be clarified.

Fluid management in patients who present with renal colic is controversial. The utility of fluids, although clearly beneficial in providing vascular support in dehydrated or septic patients, has not been demonstrated in clinical trials as useful in treating renal colic or aiding in stone passage.


Q5: Following the above question, when dealing with the renal colic, did the authors managed with IV hydration or just using opioids and NSAIDs?

When we deal with the renal colic in our department we just use opioids and NSAIDs. As fluid therapy is not commonly used in our center for treating renal colic and it is kept only for dehydrated and septic patients, our patients received very little amount of fluid, 10 ml, only for injection.

Q6: The authors need to mention about the duration of the therapeutic effect of lidocaine. Did the pain recur?

Complete pain relief was reported in 7 out of 8 patients after the lidocaine administration which lasted until hospital discharge. These mentioned patients were followed up by telephone for the following 24 hours. For reducing the risk of stone recurrence, all patients were instructed to force oral hydration to produce at least 2 liters of urine per day after discharge from the emergency room. Six of patients reported that the renal colic had not come back during the previous 24 hours but one patient experienced renal colic who rated his pain as 3/10 that relieved by NSAIDS.

Q7: Another table for the detailed mention about the patients would be necessary.
We add Table 2 (Individual patient characteristics).
Looking to hear from you

Best regads

Authors