

**PP27****Efficacy of peritubal local anesthetic infiltration in alleviating postoperative pain in percutaneous nephrolithotomy**

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Introduction: The surgical management of urinary calculus has evolved considerably over the past few decades especially with the introduction of minimal invasive procedures and shock wave lithotripsy (SWL) and percutaneous nephrolithotomy (PCNL). Percutaneous Nephrolithotomy (PCNL) is a safe and effective procedure for management of patients with renal calculi and is less invasive, shorter and associated with less chance of infection. Although PCNL is less painful than open surgery, placing a nephrostomy tube after PCNL is the standard of post-operative care. One important cause of post PCNL pain is the site of skin puncture and presence of nephrostomy tube. The nephrostomy tube is placed to prevent bleeding from renal parenchyma and can be used for relook procedures. Despite advancement in the field of pain management, most patients still have insufficient post-operative analgesic medication which results in prolonged hospitalization, increased cost, delayed mobilization.

Percutaneous nephrolithotomy is a routine endourologic procedure in patients with renal stones. Although it is less painful than open surgery, good postoperative analgesia is required to alleviate pain around nephrostomy tube. The study was to determine compare the mean post-operative pain score with and without 0.25% peritubal bupivacaine infiltration on postoperative pain through visual analogue pain score in patients undergoing percutaneous nephrolithotomy at a tertiary care hospital.

Objective: Compare the mean post-operative pain score with and without 0.25% peritubal bupivacaine infiltration on postoperative pain through visual analogue pain score in patients undergoing percutaneous nephrolithotomy at a tertiary care hospital.

Study Design: Randomized controlled trial. Non probability, consecutive sampling.

Results: A total of 92 patients were included fulfilling the inclusion criteria in this study. These patients were randomly equally divided into two groups. In group "A" (Cases group) 42 patients and in group "B" (Control group) 42 patients. The overall mean age of these patients was as 44.83 ± 12.9 years. The overall Duration of Surgery of the patients was as 115.71 ± 25.31 minutes. In group "A" the mean age of the patients was 45.97 ± 14.15 years compared with group B as 43.69 ± 11.58 years. The mean duration of surgery in Group A was 107.13 ± 22.26 as compared in to group B was 124.30 ± 25.48 . The mean BMI was in Group A was 26.15 ± 3.75 as compared in to group B was 22.35 ± 3.24 . The average means of Mean Pain Score at different interval of time was evaluated the average difference in mean pain score was determined 3.07 ± 2.29 respectively. In group "A" the Total average mean pain score of the patients was 13.19 ± 6.65 as compared with group B as 25.26 ± 6.38 . The overall average pain score after 24 hours for cases group was 1.36 ± 1.35 on visual analogue scale, while that for control group was 3.54 ± 2.05 with a p-value < 0.05 , which clearly indicate that postoperative infiltration of Bupivacaine significantly decreases the postoperative pain in patients undergoing percutaneous nephrolithotomy. The association or comparison of Duration of surgery, Body mass index and number of tramadol doses at different interval of time was found statistically significant with group A & Group B ($P=0.00$) except age group was found not statistically significant ($p>0.05$) at 95% confidence interval.

Conclusion: In this study a significant difference in the pain scores and analgesic requirement was noted in the two groups of patients. Peritubal infiltration of 0.25% bupivacaine solution efficient in alleviating postoperative pain after PCNL.