



Incidence of Urinary Retention in Patients Undergoing Unilateral Total Knee Arthroplasty – Comparison Between Continuous Epidural Analgesia & Single Shot Femoral Nerve Block – A Randomized Controlled Study



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Introduction

Pain after total knee arthroplasty (TKA) is severe & effective pain control lowers the risk of postoperative complications. Postoperative urinary retention can lead to significant morbidity. Studies have shown difference in the incidence of urinary retention when different analgesic modalities have been used.

Objectives

Primary

- To compare the incidence of urinary retention in patients undergoing unilateral TKA receiving continuous epidural analgesia vs. single shot Femoral Nerve Block

Secondary

- To compare surgical outcomes like maximal knee flexion at 24 hours, time taken to mobilize out of bed and mean postoperative hospital stay between the two groups

- To compare Patient satisfaction with the analgesic modality

Material & Methods

Study Design

Randomized controlled study

Sampling Technique

Non probability consecutive sampling

Inclusion Criteria

- Male and female patients age between 30 and 70 years
- ASA status I, II & III
- Unilateral TKA

Exclusion Criteria

- Patient Refusal
- Allergy to local anesthetics
- History of opioid dependence
- Contraindications to regional/ neuraxial
- Inability to use patient-controlled analgesia
- History of urinary retention, neurogenic bladder, or any urologic problem

Sample Size

30 patients

Results

Time (hours)	Urinary Retention		P Value
	Group E n = 30	Group F n = 30	
0 hours	28(93.3%)	26(86.7%)	0.38
12 hours	17(56.7%)	8(26.7%)	0.018*
24 hours (final outcome)	14(46.7%)	2(6.7%)	0.0005*

	Group E n=30	Group F n=30	P-Value
Mean Post-op Hospital Stay (hrs)	162.70±11.77	157±9.75	0.046*
Time taken to mobilize out of bed (hrs)	38.17±6.53	25.73±4.18	0.0005*
Are you satisfied with the method of your pain?	25(83.3%)	26(86.7%)	0.71

Conclusion

- Single shot femoral nerve block offers a more favorable profile in terms of post-operative urinary retention, time taken to mobilize out of bed & hospital stay when compared to continuous epidural analgesia in patients undergoing unilateral TKA