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Original Research Article

A Comparative Study between Fascia Iliaca Compartment Block and Intravenous Fentanyl for Positioning during Spinal Anaesthesia and Postoperative Analgesia in Patients Undergoing Fracture Femur Surgeries

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Conflict of interest: Nil

Abstract

Background: Proximal femur fractures cause severe pain, complicating patient positioning for spinal anaesthesia (SA). Adequate pre-procedure analgesia improves positioning, reduces SA performance time, and enhances perioperative comfort. This study compares ultrasound-guided fascia iliaca compartment block (FICB) with intravenous (IV) fentanyl for positioning during SA and postoperative analgesia.

Methods: In this prospective observational study, 60 ASA I–II patients aged 18–70 years scheduled for elective proximal femur fracture surgery were divided into two groups (n=30 each). Group I received US-guided FICB with 30 ml 0.25% bupivacaine, 15 min before SA. Group F received IV fentanyl 1 µg/kg, 15 min before SA. Outcomes assessed were quality of positioning, VAS score during positioning, SA performance time, patient acceptance, postoperative VAS scores, and time to first rescue analgesia, total 24-hour analgesic doses, hemodynamic stability, and complications.

Results: Demographic variables were comparable. Positioning quality was higher in Group I (2.23 ± 0.63) vs. Group F (1.6 ± 0.85; p=0.0018). SA performance time was shorter (9.26 ± 0.91 vs. 10.4 ± 1.83 min; p=0.0041). VAS during positioning was lower (1.33 ± 0.92 vs. 2.33 ± 0.84; p<0.001). Patient acceptance was greater (100% vs. 86.67%; p=0.0038). Group I had lower postoperative VAS scores at 4–24 h, longer time to first rescue analgesia (7.97 ± 0.85 vs. 3.6 ± 0.49 h; p<0.001), and fewer analgesic doses (1.56 ± 0.50 vs. 2.77 ± 0.43; p<0.001). Hemodynamics were stable; complications were minimal.

Conclusion: US-guided FICB offers superior positioning analgesia, prolonged postoperative pain relief, and reduced analgesic consumption compared with IV fentanyl, with stable hemodynamics and minimal side effects.

Keywords: Fascia Iliaca Compartment Block, Fentanyl, Spinal Anaesthesia, Proximal Femur Fracture, Analgesia.

Introduction

Proximal Fracture femur is one of the common fractures following trauma in all age groups which causes severe pain and distress. The periosteum has the lowest pain threshold among the deep somatic structures, a fractured femur is a common orthopaedic injury that causes the patient severe pain and distress [1]. Regional anaesthesia is the most widely used anaesthetic technique for orthopaedic procedures in lower limbs [2]. It provides good perioperative pain relief, reduces systemic analgesic requirements, avoids unnecessary airway manipulation, and permits early ambulation, less morbidity, less chances of deep vein thrombosis and less mortality. These are the main advantages of this technique over general anaesthesia [3]. Central neuraxial block such as subarachnoid block is the preferred and universally accepted technique for providing anaesthesia for surgeries of fracture femur. [4] The technique of performing spinal anaesthesia in patients with a proximal femoral fracture is difficult due to poor positioning secondary to pain. Correct positioning

during spinal anaesthesia is the prerequisite in order to perform spinal anaesthesia successfully. So providing adequate pain relief not only increases comfort in these patients but also has been shown to improve positioning and decrease time for subarachnoid block [4] Multiple modalities like Fascia iliaca compartment block(FICB), Femoral nerve block, 3 in 1 block with local anaesthetics and Intravenous analgesia with opioids like fentanyl , midazolam, ketamine, propofol, have been advocated to reduce the pain preoperatively and improve positioning in these patients before SA and postoperative pain relief.

Nowadays studies propose that nerve blocks mainly Fascia iliaca compartment block(FICB) and femoral nerve block (FNB) minimize devastating pain of proximal femur fracture and increase patient safety ,shorten time to perform spinal anaesthesia, increase patient acceptance [5] and provide postoperative analgesia without significant side effects [6,7].

US guided Fascia Iliaca Compartment Block is a safe, simple and easy to perform peripheral nerve block. The FICB is low concentration, high volume local anaesthetic nerve Block administered into the fascia iliaca compartment at the inguinal region which targets the femoral, obturator and Lateral femoral cutaneous nerves. [8]. So the role of US guided fascia iliaca compartment block is providing satisfactory analgesia and improving the quality of patient positioning for spinal anaesthesia. It also provides postoperative analgesia. This study is designed to compare fascia iliaca compartment block and intravenous fentanyl for positioning during spinal anaesthesia and postoperative analgesia in patients undergoing proximal fracture femur surgeries.

Material and Method

Following approval from the ethical committee and informed consent from the patients and their families, 60 adult patients, aged 18 to 70, with physical status of ASA grade I and II , who were scheduled for proximal fracture femur surgeries were included in this prospective observational study. A study was carried out at a tertiary care hospital.

Inclusion Criteria

- Patients of either sex , Age >18 yrs and <70yrs
- ASA grade I & II
- All patients undergoing elective surgery for proximal fracture of femur
- Consent from patient and relative taken.

Exclusion Criteria

- Patients not satisfying inclusion criteria.
- Patients with multiple fractures.
- Contraindication to SA (Patients with bleeding tendencies and coagulopathy, spinal deformities.)
- Patients with skin lesion and infection at block site
- Patients on previous opioid therapy.
- Patients with known local anaesthetic and opioids allergy
- Previous Femoral Bypass Surgery

Preparation:

- All patients were advised nil by mouth as per standard fasting guidelines.
- On arrival at the operation theatre, an intravenous line was secured, and intravenous fluids started.
- ECG, Pulse oximeter and Non-invasive blood pressure cuff were applied and baseline pulse, blood pressure, oxygen saturation were recorded.

Patients were divided into two groups.

1) Group I - Fascia iliaca compartment block group (USG guided FICB with 0.25% Bupivacaine 30 ml).

2) Group F - Intravenous fentanyl group (1 ug/kg IV fentanyl

Materials:

Equipments required:

A sterile tray containing: bowls filled with spirit, normal saline solutions, and povidone iodine.

- Sterile towel and towel-clip.
- Sponge holding forceps.
- A 23-gauge disposable spinal needle.
- Disposable syringes of 5 ml and 10 ml.
- Ultrasound machine and its probe (6-12 MHz) properly cleaned and aseptically prepared for the procedure in each patient.

Emergency resuscitation equipments:

- The anaesthesia workstation.
- Oxygen source with Bain's circuit and appropriate size mask
- Intubation kit.
- Working suction apparatus.
- Intravenous crystalloid and colloid infusion bottles.
- Working defibrillator.

Premedication:

Inj. Glycopyrrolate 0.004mg/kg was given to the patients in each group.

- VAS score was assessed before giving block/IV fentanyl.
- Patients were asked to describe their pain (VAS score) from 0 to 10, where 0 means no pain and 10 means worst pain.

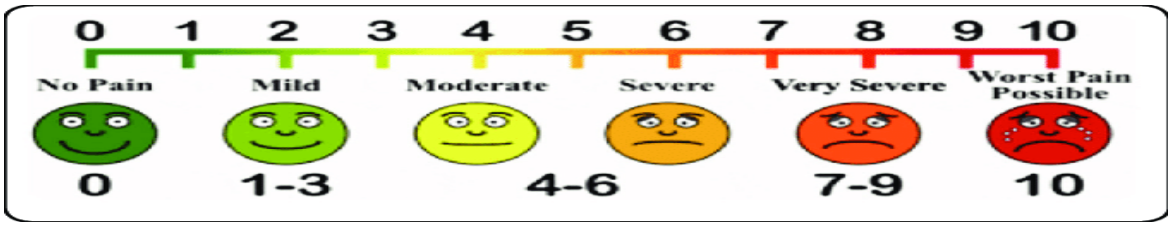


Figure 1: Vas Score

Group I: Fascia iliaca compartment block group

In this group, patients received US guided FICB 15 minutes prior to positioning. In this group, 0.25% Bupivacaine 30 ml was injected after a negative aspiration test. Group FICB patients were placed in supine position.

The Ultrasound Machine was powered on and the linear array probe was covered with sterile dressing after applying ultrasound gel. The probe was placed in a horizontal direction over the anterior part of the thigh just below the inguinal ligament. The ultrasound setting was used to visualise at a frequency of 10 MHz and a depth of 3-4 cm. The gain and focus were adjusted according to the image scanned. Femoral artery was identified first. Then the iliacus muscle covered by fascia iliaca was identified lateral to the artery.

A 23G spinal needle was then inserted in plane to the ultrasound beam.

The needle was advanced until the tip of the needle was placed beneath the fascia iliaca (appreciating the give as the fascia is perforated) and after negative aspiration, the local anaesthetic 30 ml of 0.25% bupivacaine was injected and its spread visualized on the ultrasound screen. The fascia iliaca compartment block was done 15 minutes before the sub arachnoid block.

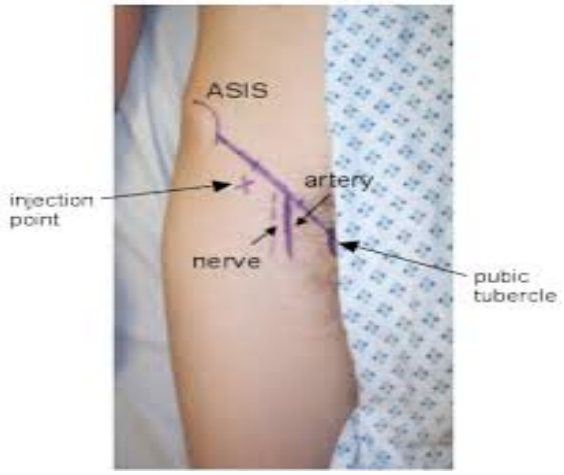


Figure 1: Fascia Iliaca Compartment block- Landmark technique

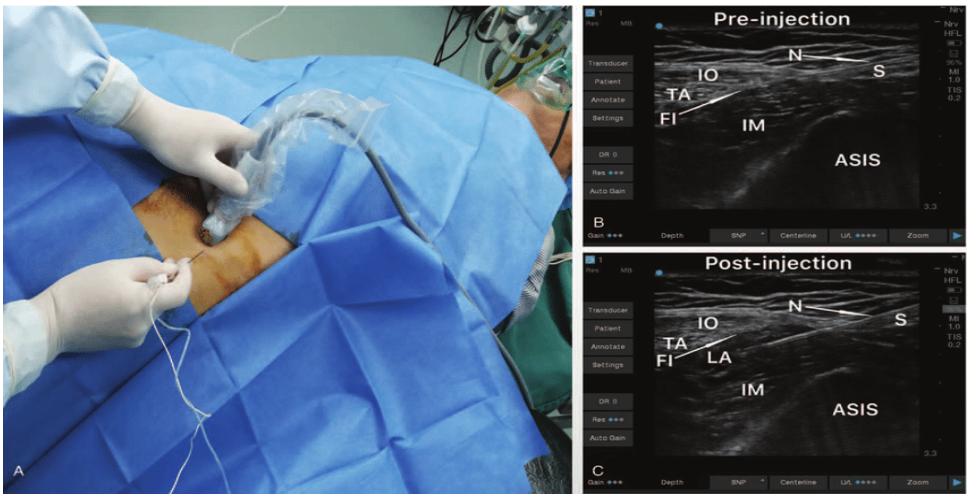


Figure 2: Fascia Iliaca Compartment block under USG guidance probe position and needle direction

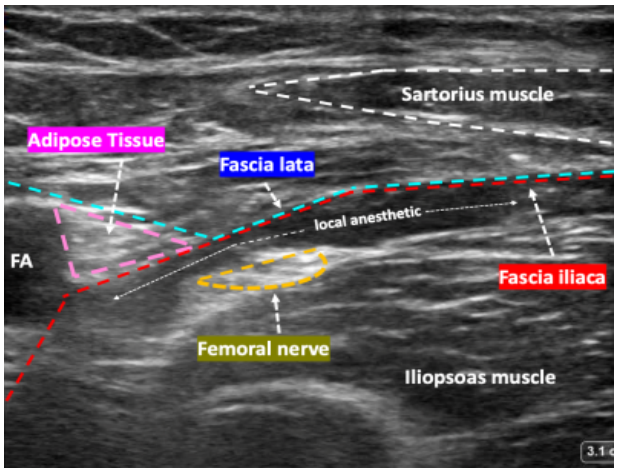


Figure 3: Fascia Iliaca Compartment block under USG guidance

Group F: Intravenous fentanyl group

In this group, patients were given an injection of fentanyl 1µg/kg IV 15 minutes prior to positioning. After performing FICB and giving I.V. fentanyl in respective groups, a spinal block was performed under strict aseptic and antiseptic precautions in sitting position, by using hyperbaric bupivacaine 0.5%, 3-3.5 ml in the midline or paramedian approach at the L2/3 or L3/4 level according to the anesthesiologist's decision.

The study involved periodic assessment of various parameters in the following manner.

Quality of patient positioning for spinal anaesthesia: By anaesthesiologist performing spinal anaesthesia.

0 – not satisfactory 1 – satisfactory 2 – good 3 – optimal

Performance time [9]: The time from beginning of patient positioning to the removal of the spinal needle.

VAS score: before block/IV fentanyl and and during positioning for spinal anaesthesia.

Patient Acceptance: Each patient was asked "Are you comfortable with pain management done for positioning? "Yes/ No"

hemodynamic parameters : Heart Rate, SBP , DBP and MAP and SPO2 were recorded before fascia iliaca compartment block/ IV fentanyl and then during positioning for spinal anaesthesia and also after spinal anaesthesia at regular intervals throughout procedure(0 min ,5 min ,10 min ,15 min ,30 min ,60 min and 90 min).

Postoperative Analgesia

Vas Score: VAS score assessed at regular intervals in postoperative period at 1hr, 2hr, 4hr, 8hr, 12 hr and 24hr and as an when patient complained of pain. Rescue analgesia was given when postoperative VAS score was > 4, in the form of Inj. tramadol 1 mg/kg with Inj. Ondansetron 0.08 mg/kg IV and this time is noted which is the time for first rescue analgesia. Total number of analgesic doses given was also noted in the 24 hrs postoperative period.

Adverse Reactions and Complications: Patients were assessed for any adverse reaction of study drugs or complications related to spinal anaesthesia and treated accordingly. Bradycardia is defined when heart rate <60 beats/min and corrected by Inj. Atropine 0.6 mg i.v. Hypotension is defined when mean arterial blood pressure ≤ 20% from baseline and managed by i.v. fluids and Inj. Mephentermine 6 mg i.v. Intraoperative Respiratory depression is defined as RR <12/min or SpO2 <90% - Treated with 100% oxygen by mask. Other complications like local anaesthetic toxicity, itching, shivering, nausea and vomiting were treated accordingly.

Statistical Analysis

Analytical Statistics

- A Microsoft Excel spreadsheet was used to capture all of the data.
- Data analysis was carried out using Microsoft excel spreadsheet and software.
- Unpaired "t" tests were used to compare the descriptive data of the two groups.
- The central tendency of the data in one study group at a specific point in time is determined using the mean.
- A set of data's dispersion from its mean is measured by the standard deviation.
- A "P" value of less than 0.05 was deemed statistically significant (S), while a value of less than 0.001 was deemed highly significant (HS). Non-significant (NS) is a "P" value greater than 0.05

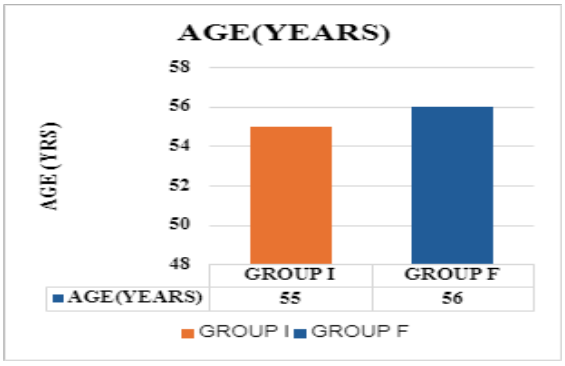
Observations and Results

Table 1: Groups

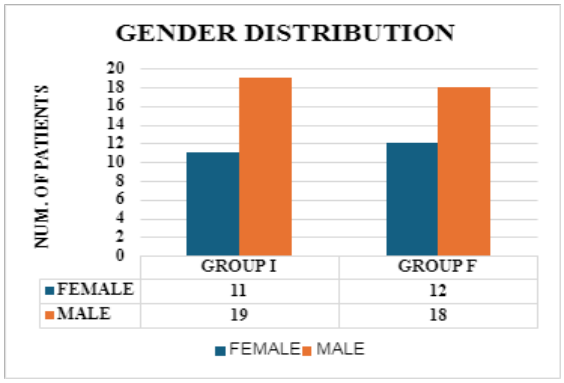
Group	Intervention	Number
Group I	Fascia Iliaca Compartment Block	30
Group F	Intravenous fentanyl	30

Table 2: Comparison of Demographic Data

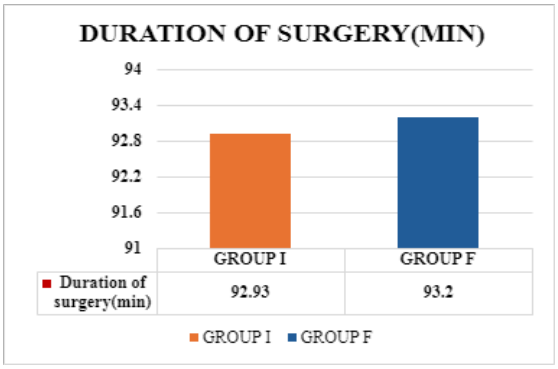
	Group I(N=30)	Group F (N=30)	P Value	Inference
Age(Years)	55 ± 9.89	56 ± 11.31	0.50	Ns
Sex **Female** **Male**	 11(36.67%) 19(63.33%)	 12(40%) 18(60%)	-	-
Asa Grade (I/II)	10/20	12/18	-	-
Duration Of Surgery	92.93± 10.94	93.2±11.049	0.925	Ns



Graph 1: Age Distribution.



Graph 2: Gender Distribution.



Graph 3: Duration of Surgery

Table 2 And Graph 1, 2 And 3 shows there was no significant difference between these two groups in their

demographic characteristics and duration of surgery. (P>0.05)

Table 3: Types of Surgery

Surgery	Group I	Group F
PFN	12	13
Bipolar	10	9
DHS	5	4
Cc Screw	3	4
Total	30	30

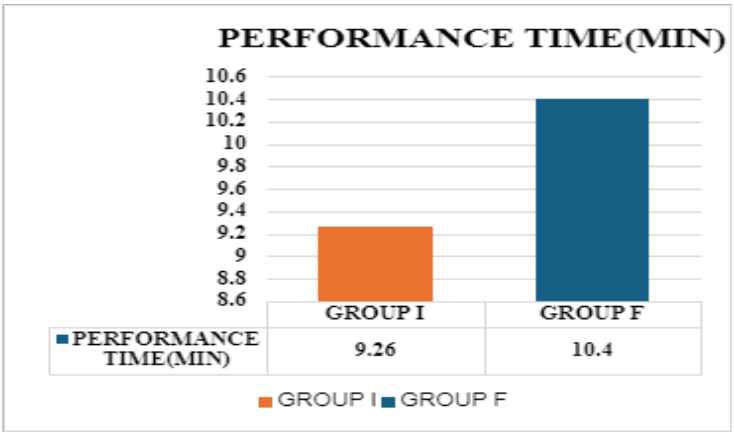
All surgeries in **Table 3** were successfully performed under spinal anaesthesia

Table 4: Quality of Patient's Position (0-3) With Anaesthesiologist Satisfaction

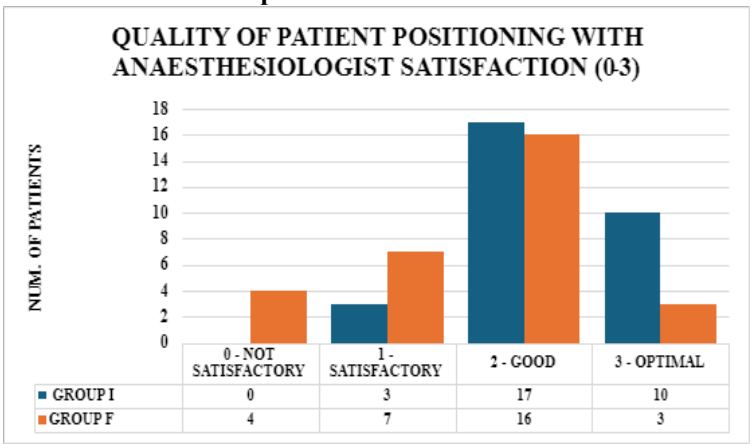
	Group I (N=30)		Group F (N=30)	
	No Of Patient	%	No Of Patient	%
0 - Not Satisfactory	00	0%	04	13.33%
1 - Satisfactory	03	10%	07	23.33%
2 - Good	17	56.67%	16	53.33%
3 - Optimal	10	33.33%	03	10%
Total	30	100%	30	100%
Mean ± Sd	2.23 ± 0.63		1.6 ± 0.85	
P Value	0.0018			

Table 5: Performance Time

Performance Time(Min)	Group I	Group F
Mean	9.26	10.4
Sd	0.91	1.83
P Value	0.0041	



Graph 5: Performance Time



Graph 4: Quality of Patient's Position with Anaesthesiologist Satisfaction

Table 4 and Graph 4 shows there was a statistically significant difference observed among the both groups for quality of patient positioning with anaesthesiologist satisfaction. P=0.0018. (p Value <0.05)

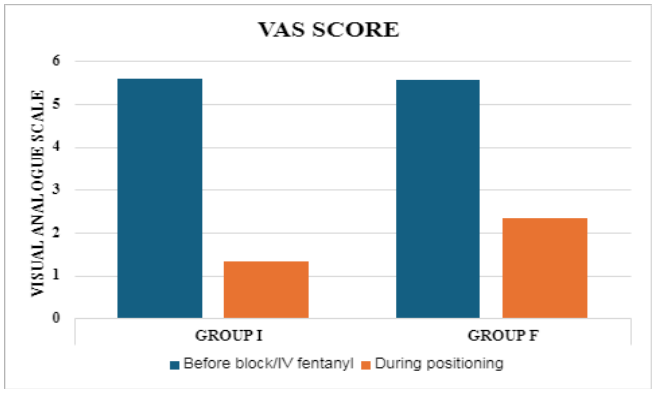
Table 5 and Graph 5 shows in comparison to the patients in group F, the patients in group I needed less performance time.

Therefore, there was a statistically significant difference between the two groups for the mean performance time (min) as shown in table.5. P=0.0041 ($p < 0.05$)

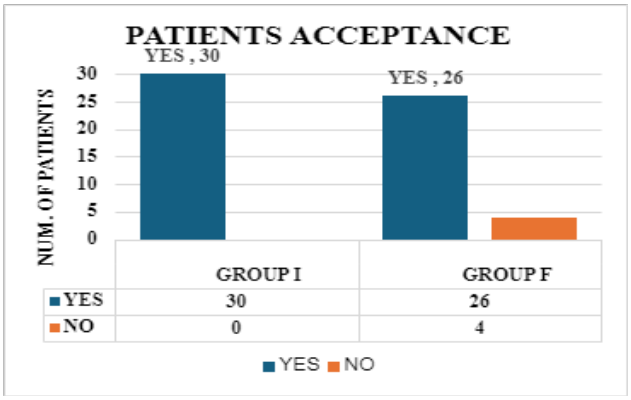
Table 6: Vas Score

Time Duration	Group I		Group F		P Value	Inference
	Mean	Sd	Mean	Sd		
Before Giving Block/Iv Fentanyl	5.6	0.498	5.57	0.50	0.78	Ns
During Positioning	1.33	0.92	2.33	0.84	<0.001	Hs

Patient's Acceptance



Graph 6: Vas Score



Graph 7: Patient's Acceptance

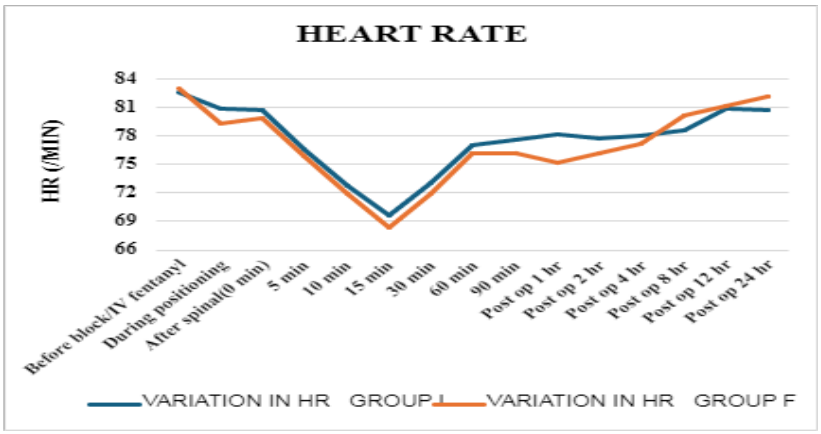
Table 6 And Graph 6 shows that there was a statistically significant difference in VAS score observed in Group I and Group F during positioning for SA.

The P value in both groups is extremely significant. ($p < 0.001$) Graph 7 shows patient's acceptance was less in Group F as compared to Group I. There was a statistically significant difference observed among both the groups for patient acceptance. P= 0.038 ($p<0.05$)

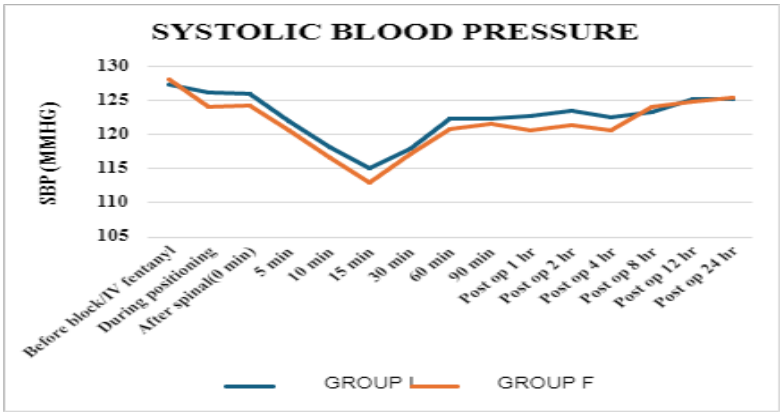
Hemodynamic Parameters

Heart Rate.

Systolic Blood Pressure

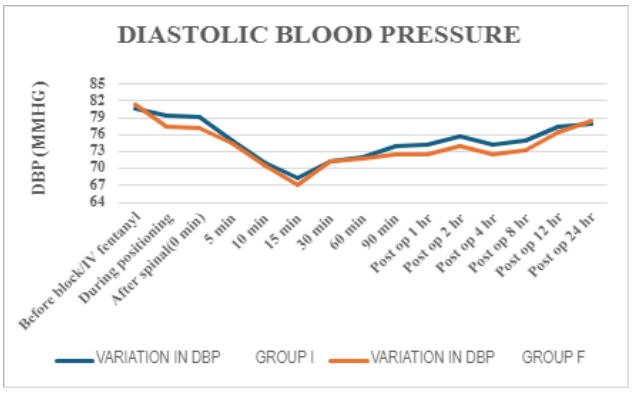


Graph 8: Heart Rate

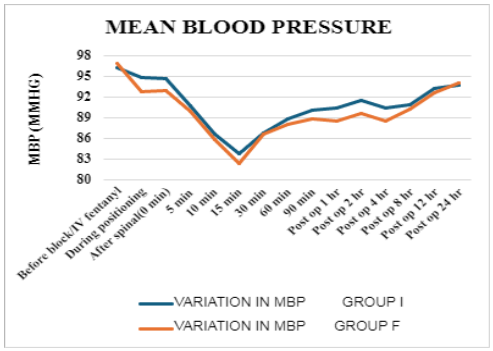


Graph: 9 Systolic Blood Pressure

Diastolic Blood Pressure. Mean Blood Pressure

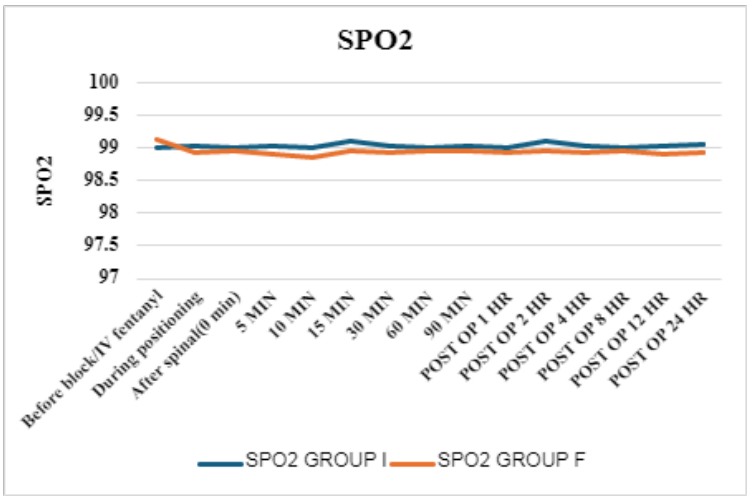


Graph 10: Diastolic Blood Pressure.



Graph: 11 Mean Blood Pressure

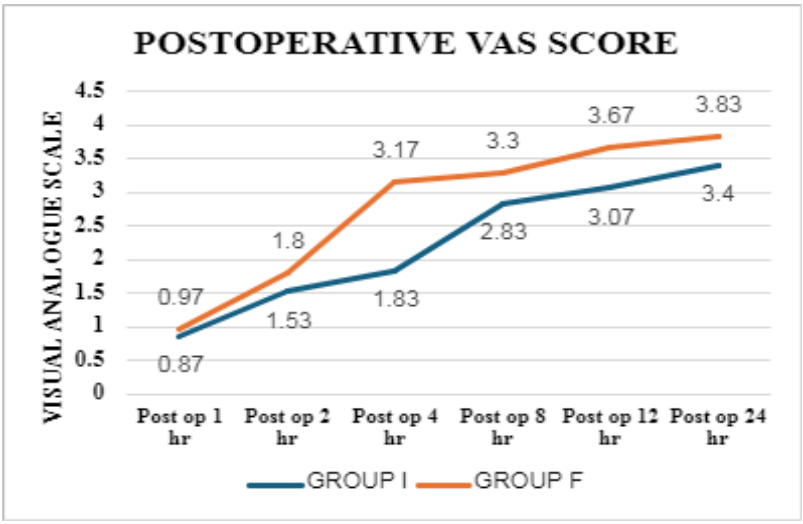
SPO2



Graph 12: Spo2

Graph 8,9,10, 11 and 12 shows that there was NO statistically significant difference in HEART RATE, SBP, DBP, MBP and SPO2 observed in GROUP I and GROUP F during the perioperative period. (P > 0.05)

Postoperative Vas Score



Graph 13: Postoperative Vas Score

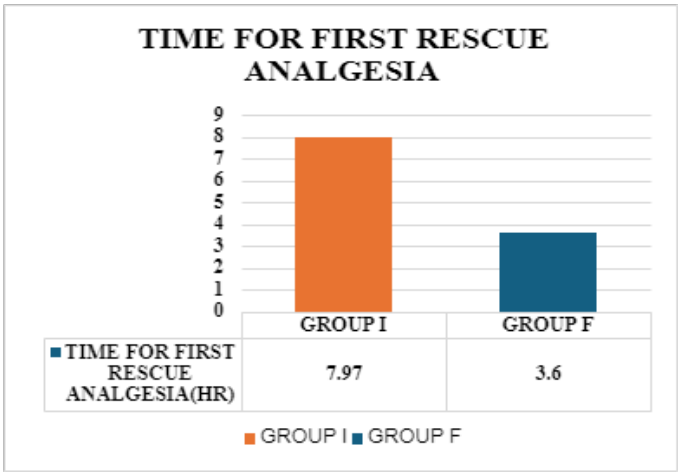
Graph 13 shows that there was a statistically significant difference in postoperative VAS score observed in GROUP I and GROUP F in the postoperative period at 4hr, 8hr , 12 hr and 24 hrs. The P value in both groups is statistically significant. (p < 0.001).

Table 14: Time for First Rescue Analgesia

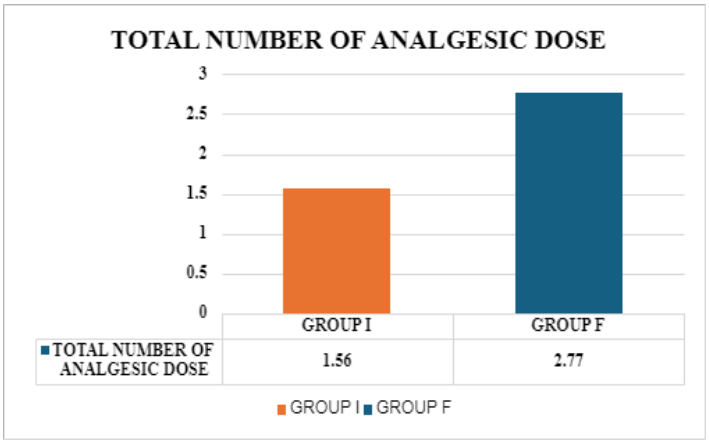
	Group I		Group F		P Value	Inference
	Mean	Sd	Mean	Sd		
Time For First Rescue Analgesia	7.97	0.85	3.6	0.49	<0.001	Hs

Table 15: Total Number of Analgesic Dose

	Group I		Group F		P Value	Inference
	Mean	Sd	Mean	Sd		
Total Number Of Analgesic Dose	1.56	0.50	2.77	0.43	<0.001	Hs



Graph: 14 Time For First Rescue Analgesia.



Graph 15: Total Number of Analgesic Dose.

Table 14 and Graph 14 shows time for first rescue analgesia was less in Group F as compared to Group I. There was a statistically highly significant difference observed among both the groups for first rescue analgesia.($p<0.001$)

Table 15 and Graph 15 shows the total number of analgesic doses was less in Group I as compared to Group F. There was a statistically highly significant difference observed among both the groups for the total number of analgesic doses. ($p<0.001$)

Table 16: Perioperative Complications

Complications	Group I (N=30)	Group F (N=30)
Bradycardia	Nil	Nil
Hypotension	Nil	Nil
Respi. Depression	Nil	Nil
Itching	Nil	Nil
Shivering	01	02
Nausea/vomiting	Nil	Nil
Others	Nil	Nil

As shown in table 16, perioperative complications were observed in both groups. In group I out of 30 patients, 1 patient had shivering. In group F out of 30 patients, 2 patients had shivering. Shivering was treated by warm IV fluids.

Discussion

There has been an increase in the number of patients presenting with femur fractures in recent years. As a result, surgical repair which requires anaesthesia has also increased. The most commonly used anaesthetic technique of choice in proximal femur fracture is regional anaesthesia. While regional anaesthesia has been shown to be more beneficial compared to general anaesthesia, patient positioning for neuraxial blockade may cause severe pain in patients with proximal femur fractures. Patients with proximal femur fracture require continued pain management from positioning for SA to postoperative period. To

relieve discomfort and pain during positioning in these patients, a variety of systemic analgesics are being used. Most commonly used systemic analgesics are opioids, but they are known to be associated with side effects like vomiting, respiratory depression and cognitive impairment, especially in the elderly.

Nerve blocks like the 3 in 1 block, femoral nerve block, and fascia iliaca compartment block have all come up as an alternative approach to improve positioning and provide postoperative analgesia in these patients. [10]

In this prospective observational study we compared ultrasound guided fascia iliaca compartment block with bupivacaine and intravenous fentanyl for positioning during spinal anaesthesia and postoperative analgesia in patients undergoing proximal fracture femur surgery. 60 patients, with age groups of 18-70 years, ASA grade I & II, satisfying the inclusion criteria were chosen and divided into two groups of thirty each. Group I received 30ml of 0.25% bupivacaine under ultrasound guidance fifteen minutes before positioning for SA , while group F received Inj. Fentanyl 1 mcg/kg IV ,15 minutes before positioning.

In 1989 Dalens et al [11] first described landmark guided Fascia iliaca compartment block in paediatric populations. This technique requires no more skills nor expensive devices, and it does not damage any vital organ.

The first US-guided technique of the FICB as described by Dalens, was published by John Dolan [12], in 2008.

In the present study, demographic variables including age, gender, ASA grade, and duration of surgery were comparable between the two groups, with no statistically significant differences ($P > 0.05$). Similar findings were reported by S. Arun Sathish, Gokul S, Rakesh Choudhary, and Surya Prakash Chittora [13] (2022), who observed no demographic variability when comparing FICB and IV fentanyl in femur fracture surgeries.

We employed ultrasound-guided fascia iliaca compartment block (FICB) using 30 ml of 0.25% bupivacaine in Group I, and intravenous fentanyl 1 µg/kg in Group F, both administered 15 minutes before positioning.

The use of ultrasound guidance is supported by Dolan et al. [12] (2008), who demonstrated improved sensory blockade and higher success rates compared to landmark techniques. Our drug regimen was similar in principle to that of Pooja Yadav, A. R. Gogia, and Mona Swain [14] (2021), who used a larger volume of bupivacaine and a higher fentanyl dose, yet reported comparable trends favouring FICB. Our results showed significantly better quality of patient positioning and anaesthesiologist satisfaction in the FICB group (mean 2.23 ± 0.63) compared to the fentanyl group (1.6 ± 0.85; $P = 0.0018$). These findings are consistent with the work of Yadav et al. [14] (2021), Maria Diakomi et al. [15] (2014), and Melaku Bantie et al. [16] (2020), all of whom demonstrated superior positioning quality with FICB. The shorter performance time in our FICB group (9.26 ± 0.91 min) versus the fentanyl group (10.4 ± 1.83 min; $P = 0.0041$) is in line with the observations of Bantie et al. [16] (2020) and Sathish et al. [13] (2022), who reported faster spinal anaesthesia with FICB. Patient acceptance was also higher in our FICB group (100% vs. 86.67%; $P = 0.0038$), similar to the acceptance rates documented by Yadav et al. [14] (2021).

Pain scores during positioning were significantly lower with FICB (VAS 1.33 ± 0.92) compared to fentanyl (2.33 ± 0.84; $P < 0.001$), a finding supported by Madabushi et al. [17] (2016), Nirav Jentilal Kacha et al. (2018) [18], and Yadav et al. [14] (2021), who all reported marked reductions in positioning pain with FICB. Pre-intervention VAS scores were comparable between groups, indicating that the analgesic advantage was attributable to the intervention itself.

Hemodynamic parameters (HR, SBP, DBP, MAP, SpO_2) remained stable and comparable in both groups throughout the perioperative period, consistent with the findings of Sathish et al. [13] (2022).

Postoperatively, FICB offered prolonged analgesia, with significantly lower VAS scores at 4, 8, 12, and 24 hours, a longer time to first rescue analgesia (7.97 ± 0.85 h vs. 3.6 ± 0.49 h; $P < 0.001$), and reduced total analgesic requirements (1.56 ± 0.50 vs. 2.77 ± 0.43 doses; $P < 0.001$). These results are in agreement with Kumie et al. [19] (2015) and Kacha et al. [18] (2018), who similarly reported extended analgesia duration and decreased postoperative analgesic consumption with FICB. Overall, our findings reinforce the evidence that ultrasound-guided FICB provides superior positioning quality, faster performance time, higher patient and anaesthesiologist satisfaction, better perioperative analgesia, and prolonged postoperative pain relief compared to IV fentanyl, without compromising hemodynamic stability.

Summary

The study entitled “A Comparative Study Between Fascia Iliaca Compartment Block And Intravenous Fentanyl For Positioning During Spinal Anaesthesia And Postoperative Analgesia In Patients Undergoing Fracture Femur Surgeries ” was conducted at tertiary care hospital on 60

patients, with age group of 18-70 years and ASA grade I and II, posted for elective proximal fracture femur surgeries.

The patients were divided into 2 groups – 1) GROUP I - Fascia iliaca compartment block group.2) GROUP F - Intravenous fentanyl group.

In the I group, patients received USG guided FICB 15 minutes prior to positioning for subarachnoid block, with 30 ml, 0.25% bupivacaine.

In the F group, patients received injection fentanyl 1µg/kg IV 15 minutes prior to positioning for SA. Both the groups were evaluated for demographic data , quality of patient positioning with anesthesiologist satisfaction, performance time, VAS score during positioning , patient's acceptance, perioperative hemodynamic parameters, and postoperative analgesia in the form postoperative VAS score , time for first rescue analgesia , total number of analgesic dose in the postoperative period for 24 hours and Perioperative complications.

Key Findings:

1. Demographic Data: No statistically significant difference was found between the groups (group I and group F) in terms of age, gender distribution, ASA grade, and duration of surgery ($P > 0.05$).

2. Quality of Patient Positioning with anaesthesiologist satisfaction: The quality of patient positioning for spinal anaesthesia was significantly high in Group I (mean ±SD) (2.23± 0.63), compared to Group F (1.6± 0.85). There was a statistically significant difference observed among both the groups. ($P = 0.0018$).

3. Performance Time: Group I required less performance time (mean ±SD) (9.26±0.91) compared to Group F (10.4 ±1.83), There was a statistically significant difference observed among both the groups ($P = 0.0091$).

4. VAS Scores: Before block/IV fentanyl the VAS score of patients in Group I was (mean ±SD) 5.6±0.49 and in Group F it was 5.57±0.50, which was not statistically significant. (p Value = 0.78). During positioning for spinal anaesthesia , the mean VAS score of patients in Group I was (mean ±SD) 1.33±0.92 and in Group F it was 2.33±0.84 which was highly statistically significant.(p Value <0.001) .Group I showed significantly lower VAS score during positioning for spinal anaesthesia compared to Group F ($P < 0.001$).

5. Patient Acceptance: All the 30 patients in group I (100%) were satisfied, while 26 patients were satisfied and 4 patients were not satisfied in Group F. Patient's acceptance was less in Group F as compared to Group I. There was a statistically significant difference observed among both the groups.(p Value = 0.0038).

6. Hemodynamic Monitoring: No statistically significant differences were observed in heart rate (HR), systolic blood pressure (SBP), diastolic blood pressure (DBP), mean blood pressure (MBP) and SPO2 between both the groups during the perioperative periods (P Value> 0.05).

Post-operative analgesia

7. Post-operative VAS score: Group I showed significantly lower VAS score in the postoperative period at 4hr , 8hr , 12hr and 24 hr compared to Group F ($P < 0.05$).

8. Time for first rescue analgesia: Time for first rescue analgesia was significantly longer in Group I (mean ±SD)(7.97±0.85) compared to Group F (3.6 ±0.49) ($P < 0.001$).

9. Total number of analgesic dose: Total number of analgesic doses were significantly lower in Group I (mean ±SD)(1.56 ±0.50) compared to Group F (2.77 ± 0.43) ($P < 0.001$).

10. Perioperative Complications: Minimal perioperative complications were observed. Group I had one case of shivering, while Group F had two cases of shivering.

Conclusion

Fascia iliaca compartment block provides superior analgesia for positioning of patients for subarachnoid block in patients undergoing proximal fracture femur surgeries compared to IV fentanyl. FICB improves the quality of patient positioning with anesthesiologist satisfaction, less Performance time for SA, improves VAS score during positioning and Patient's acceptance.

Fascia iliaca compartment block also provides postoperative analgesia; it improves VAS score, extends the time for first rescue analgesia, and decreases total number of analgesic doses in the postoperative period with perioperative hemodynamic stability and minimal perioperative complications as compared to intravenous fentanyl.

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