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LAPAROSCOPIC GUIDED (VS) ULTRASOUND GUIDED TAP BLOCK (VS) NO TAP BLOCK IN LAPAROSCOPIC CHOLECYSTECTOMY A RANDOMISED DOUBLE BLINDED CONTROLLED TRIAL

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INTRODUCTION

Post op pain is important for abdominal surgery. Although laparoscopic surgery managed to minimise severity, post operative pain can still be a cause of patients distress and delayed recovery. Using opioid/nsaids for pain relief has been standard of care for several years. Yet, it can be associated with drawbacks inducing opioid dependence, nsaid induced ulcer and, renal failure.Alternative regional blocks including TAP emerged as feasible and safe modality to achieve after laparoscopic surgery. Currently, various techniques have been included in ERAS pathways.

TAP block is ideally performed under ultrasound guidance to ensure accurate targeting of TAP.

Nonetheless, TAP now can be performed under laparoscopic visualisation and guidance. Both USTAP and LSTAP have been suggested to aid in proper identification of correct plane and minimise peritoneal penetration.

ZAGHIYAN et al hypothesised that LSTAP was superior to USTAP and performed a randomised clinical trial comparing LSTAP, USTAP, and no TAP in minimally invasive colorectal surgery. The authors reported that LSTAP was superior to USTAP in achieving pain control and minimise opioid use in 1st 24 hours after colorectal surgery.

AIMS

1. To investigate the impact of TAP block on pain and recovery after laparoscopic cholecystectomy as compared to control.
2. To compare analgesic efficacy and outcome of USTAP and LSTAP block in order to know which is superior to other.

METHODOLOGY

STUDY DESIGN: Institution based prospective randomised controlled trial
STUDY PLACE: SVS MEDICAL COLLEGE
STUDY DURATION: 1 year (April 2022 to April 2023)
STUDY SIZE: 90 people who underwent laparoscopic cholecystectomy
METHODS: Patients were equally randomised to one of three groups USTAP, LSTAP, and control group

Main outcomes measures were pain scores and analgesic consumption with in first 24 hours, post operative nausea and vomiting, time to ambulate, time for passage of first flatus, adverse effects of TAP block, duration of surgery, time for discharge.

Present randomised controlled trial aimed to assess efficacy of USTAP and LSTAP over no TAP and USTAP with LSTAP after laparoscopic cholecystectomy in regards to post op pain scores in first 24 hours after intervention ,analgesic requirement and recovery

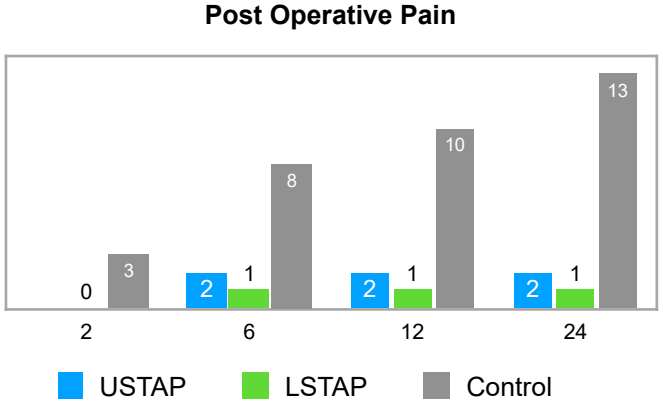
RESULTS

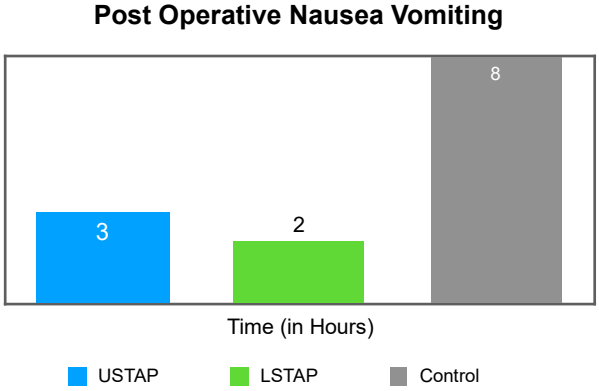
- 100 patients were allocated to study with mean age being (41+/-2). 10 people were removed from the study owing to co-morbidities the cases were cancelled.

- 90 patients were included in the study and they were randomised equally as 30 each in the study and were allocated to control, LSTAP and USTAP.
- These patients were checked for pain (post operatively) @ 2,6,12,24 hours respectively and requirement for analgesic administration. They were also checked for PONV, time to ambulate, time to pass first flatus, time duration for surgery and time taken for discharge along with adverse effect of TAP block.

PAIN:

- At 2hrs, 10% of patients in control group reported pain while 0.05% of USTAP and 0.05% of LSTAP people reported pain.
- At 6hrs, 33% of patients in control group and 5% of LSTAP AND 6.5% of USTAP reported pain and were given analgesic administration.
- At 12 hours, 27% of pts in control group and 2.8% of LSTAP and 4% of USTAP reported pain with analgesic administration.



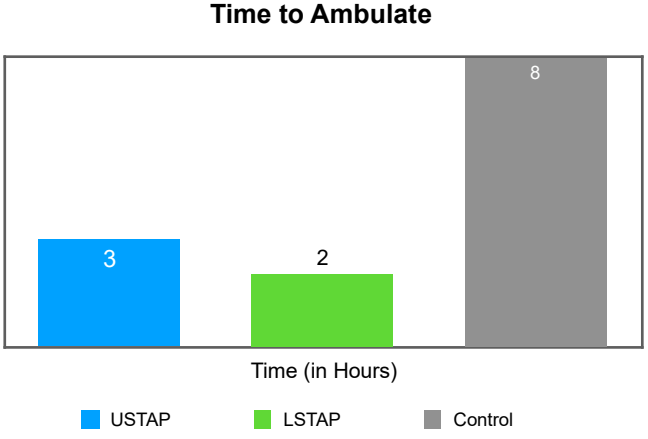


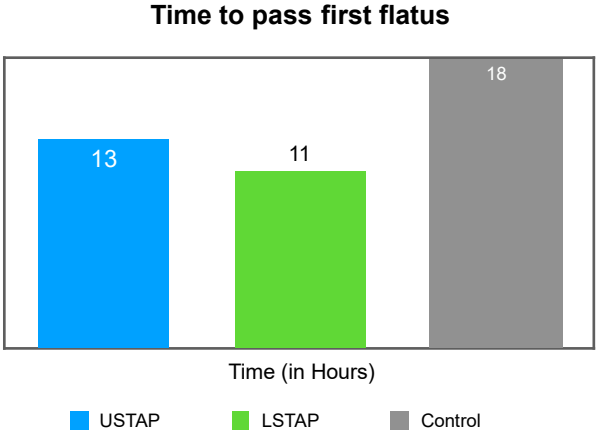
•At 24 hours, 42% of patients in control group
and 3.2% of LSTAP and 5% of USTAP reported pain with analgesic administration.

PONV:

- 25% of people in control group reported nausea and vomiting post surgery 2% of people in LSTAP.

TIME TO AMBULATE:





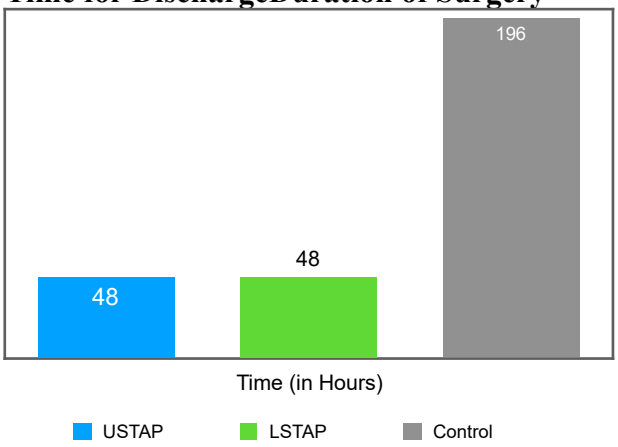
- It took on an average around 8 hours for control group and 2.5 hours for LSTAP and 3 hour for patients to ambulate.

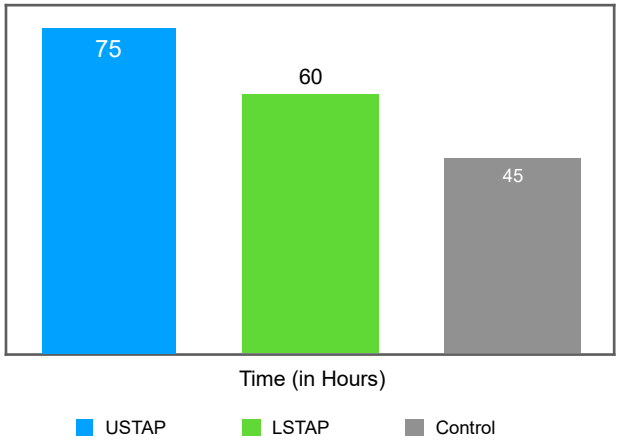
TIME TO PASS FLATUS FIRST:

- It took 18 hours for control group to pass flatus for 1st time and 11 hours for LSTAP and 13 hours for USTAP respectively.

TIME FOR DISCHARGE:

Time for DischargeDuration of Surgery





- People who underwent LSTAP and USTAP were discharged on 2nd post operative day where as control group was discharged around 4th post operative day.

DURATION OF SURGERY:

- USTAP block takes longer time as compared to LSTAP and control group.

DISCUSSION:

The present randomised trial was conducted with 2 objectives in mind 1st to investigate the impact of TAP block regardless of method of delivery on pain and recovery after laparoscopic cholecystectomy as compared to an inactive control .second to compare the analgesic efficacy and outcome of USTAP and LSTAP block in order to know whether one technique is superior to other. Overall findings of trial concluded the analgesic efficacy of TAP block in general as compared to control and slightly higher efficacy of LSTAP present over USTAP in terms of time of ambulation and time to pass first flatus and slight better pain control

CONCLUSION

Overall TAP block is a safe and effective method for pain control and improving recovery after laparoscopic cholecystectomy as compared to standard care.

Both USTAP and LSTAP blocks were equally effective in terms of postop nausea and vomiting and time for discharge

But for LSTAP block time taken for administration is less as it is administered peri-operatively and does not require expert availability and provides slightly better pain relief

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