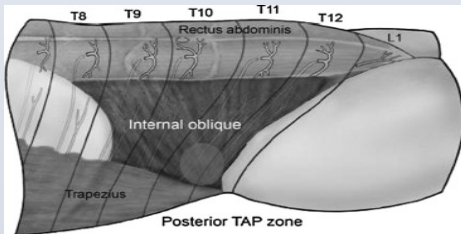


Introduction and Abstract

Transversus abdominis plane (TAP) blocks are a new approach of injecting local anesthesia into the plane between the internal oblique and transversus abdominis muscle, giving somatic pain relief. TAP blocks are a promising technique in alleviating postoperative pain in patients undergoing open abdominal surgeries, especially when used as part of a multi-modal analgesia regimen. Currently conventional practice involves the use of opioids, which are not without risks and side effects. The purpose of this study is to determine if TAP blocks done immediately after surgery, when combined with conventional pain control methods during recovery will keep pain less than 5 on pain scale.

Quality Question:

Does the use of TAP blocks combined with conventional pain control for Open Abdominal Surgeries, postoperatively decrease patient's pain to 5 on the pain scale?



Objectives

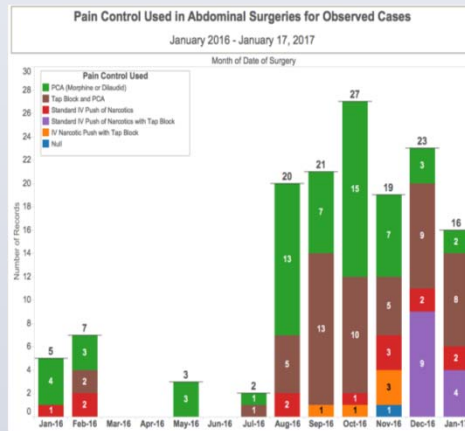
1. To keep pain equal to or less than 5 on visual pain scale.
2. Decrease length of stay in recovery to 2 hours or less, in the absence of any complications.
3. Improve patient satisfaction by keeping the patient comfortable.

Materials and Methods

This quantitative study was performed by collecting data from 142 charts of postoperative patients that had Open Abdominal Surgery over a 12-month period. Data collected were analyzed by comparing patients who received TAP blocks with conventional pain control to patients who only received conventional pain control.

A record of the dates and times of the Tap block were noted, along with pain treatment method, and pain score. Data were collected on patients who received TAP Blocks versus conventional pain control in the Post Anesthesia Care Unit (PACU). Table 1 shows the efficacy of TAP blocks for Open Abdominal Surgeries.

Table 1

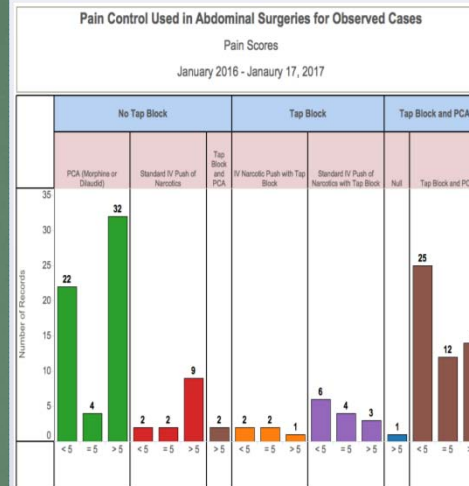


- ❖ Total Open Abdominal surgery patients observed 142
- ❖ 71 used Patient Controlled Analgesia (PCA) or Intravenous Narcotics (IV)
- ❖ 71 used PCA or IV combined with a TAP block

Results

Table 2 compares patients who **only** received conventional pain control to patients who received conventional pain control **with** a TAP Block. Those who received TAP blocks show a meaningful and significant difference in their pain scale score.

Table 2



❖ Only PCA or IV Narcotics

- Pain Scale Score**
- 24 patients → < 5
 - 6 patients → = 5
 - 41 patients → > 5

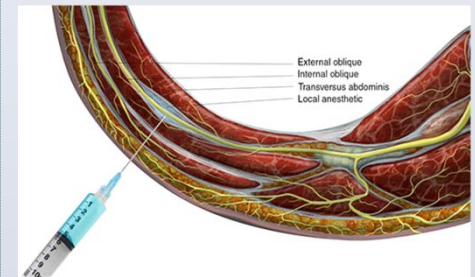
❖ With TAP Block

- Pain Scale Score**
- 33 patients → < 5
 - 18 patients → = 5
 - 20 patients → > 5

Conclusions

71% of patients who received a TAP block with conventional pain control reported pain levels of 5 or less on a visual pain scale, compared to 42% of patients who received only conventional pain control. 28% of patients who received a TAP block with conventional pain control reported pain levels of 5 or greater compared to 57% of patients who received only conventional pain control.

TAP blocks offer good pain control with minimal opioid usage and can increase patient satisfaction. The duration of a TAP block is approximately 18-24 hours; the effects are more beneficial if done immediately after surgery. The next step would be to see if length of stay in PACU is affected by using TAP blocks as well.



References

- Jakobsson, J., Wickerts, L., Forsberg, S., and Ledin, G. (2015). Transversus abdominal plane (TAP) block for postoperative pain management: a review. *F1000 Faculty Review*, 4, 1359. doi: 10.12688/f1000research.7015.1
- Mishra, M. and Mishra, S. P. (2016). Transversus abdominis plane block: The new horizon for postoperative analgesia following abdominal surgery. *Egyptian Journal of Anesthesia*, 32, 243-247.

Acknowledgements and Contacts

Special thanks to Jay Arcilla and Carleen Chhun RN, MSN for supporting me during my study.