# Usefulness of V-Loc hand-sewn anastomosis in gastrointestinal surgery

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## Introduction

The integrity of intestinal anastomosis is important, as anastomotic leakage may occasionally be fatal. Different techniques of GI anastomosis are used including Stapled anastomosis and hand-sewn technique. To the best of our knowledge there is no specific study comparing the anastomotic leak rate between the stables or V-Loc in the GI anastomosis. However, there is a single study was done in 20 recently deceased individuals comparing the use of the V-Loc and the monofilament suture material.

## Method

This was a retrospective review of 102 patient medical records. We included all patients older than 18, who underwent gastrointestinal anastomosis either using staples, regular stitches or V-Loc stitch. We collected data from 2016 to 2020 of a single surgeon experience. We used IBM SPSS for data analysis.

## Result

Among 102 patient who underwent gastrointestinal anastomosis, stapler was used in 71% of the cases. V loc was used most in small bowel and colorectal anastomosis. Staples more utilized in open cases. While V loc was more utilized in the robotic cases. That explain our finding of less hospital stay in the V loc group (P value 0.004). 56 anastomoses were done in emergent cases, out of that we used V loc in 5 anastomoses with 1 leak vs 6 leaks in stapler group with P value 0.5. The leak rate was 11.1% in staple group compare to 10% in the V loc group with P value of 0.58.

## Discussion

Many trials of gastrointestinal anastomoses created with different suture techniques, adhesives, and staples have been described. According to these trials, the continuous suture is the most effective method for creating gastrointestinal sutures because neither a fibrin patch nor staples seem to decrease the leakage rate. Staplers have been discussed controversially in the literatures because of their technical failure rate as well as their cost factor. V-Loc is a new suture for wound closure, and consists of a unidirectional barbed absorbable thread. It has multiple benefits, including high tissue adhesion ability, as they attach to tissue at numerous points. Moreover, the loop-end design avoids the need for tying a surgical knot. Clinical efficacy and suitability of barbed sutures have been reported in dermal closure and orthopedic surgery, and their intracorporal use has also been indicated in the fields of urology and gynecology.

## Conclusion

There is no difference in leak rate in gastrointestinal anastomosis between the standard method of stapler vs V loc stitch. Also, we found it is safe to use the V loc stitch in the emergency cases.

## References

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