

# Hand Sewn Anastomosis

## I. OBJECTIVES

*By the end of this laboratory session participants should be able to . . .*

- 1) Perform a two layered small bowel anastomosis

## II. ASSUMPTIONS

The intern is expected to bring to the lab the ability to demonstrate proficiency in knot tying. This skill is essential to the objectives of the lab, and is not the object of the lab. Specifically, if the resident is unable to successfully tie both two handed and one handed knots under tension, they will be excused from lab.

## III. SUGGESTED READING

The resident will be provided with a chapter from Shackelford's Surgery of the Alimentary Tract, detailing the finer points of hand sewn bowel anastomosis.

## IV. ANATOMICAL CONSIDERATION

The participant should have an understanding of the blood supply of the small intestines, the layers of the Small intestines, and the differences differences in the jejunum and ileum.

## V. DESCRIPTION OF LABORATORY MODULE

After a fifteen minute overview, the participants will each be given two sections of small intestines. They will then perform a two layered, hand-sewn anastomosis. The anastomosis will be checked for leaks by injecting the bowel with saline.

## VI. DESCRIPTION OF TECHNIQUE/PROCEDURE

The two segments will be secured to the table with clamps. The stapled ends (if present) will be removed with scissors.

- Posterior lembert layer with 3-0 silk
- Posterior running 3-0 vicryl layer x2, running clockwise and counter clockwise and meeting in the center of the antimesenteric border.
- Antimesenteric side lembert layer of 3-0 silk sutures
- Test the anastomosis

## VII. EQUIPMENT NEEDED

- Suture
  - 3-0 silk
  - 3-0 vicryl

- Scalpel
  - 10 blades
- Eight work stations with adequate lighting
- Debaquey Forceps
- Adson forceps
- Suture scissors
- Needle drivers
- Two pigs
- Hemostats
- Knot tying board

## VIII. REFERENCES

Yeo J. Shackelford's Surgery of the Alimentary Tract, Sixth Edition. Saunders, Philadelphia, 2007. (any edition of shackelford's will have a section on anastomosis. )