

Introduction to Surgical Skills

An introduction to basic surgical skills for the surgical intern

I. OBJECTIVES

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

- 1) Safely place laparoscopic ports
- 2) Properly set up and use a laparoscope
- 3) Develop an appreciation of two dimensional hand-eye coordination
- 4) Perform a celiotomy
- 5) Close the abdominal wound

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

View the first module in the SAGES/ACS Fundamentals of Laparoscopic Surgery program. Netter or Gray's anatomy chapters on the anatomy of the abdominal wall

IV. ANATOMICAL CONSIDERATION

The participant should have an understanding of the layers of the abdominal wall; Linea alba, line of Douglas, and the path of the epigastric vessels.

V. DESCRIPTION OF LABORATORY MODULE

The module will begin with a Knot tying test.

- 1) two handed : surgeon's knot followed by two throws, under tension, and in less than ten seconds
- 2) One handed: slip knot followed by by two throws, under tension, and in less than ten seconds

Those residents that pass the above test will proceed on to the lab for an introduction to the lab.

VI. DESCRIPTION OF TECHNIQUE/PROCEDURE

A.

- 1) Setting up the laparoscopy tower.
 - a. Turn on power to light, camera, gas, and monitor
 - b. Connect camera and light cords
 - c. Connect gas line
 - d. Set pneumoperitoneum pressure and flow levels

- e. White balance and focus camera
 - f. Change from 0 degree to 30 degree scopes
 - g. Inspect the differences in camera angles by rotating the camera
 - 2) Review laparoscopic Ports
 - a. Blade less vs. Bladed
 - b. Versa Step
 - c. Optical
 - 3) Demonstrate Hasson technique versus veres needle technique
 - 4) Port placement
 - a. make appropriate sized skin incision
 - b. place a bladed port
 - c. place an optical port
 - d. place a versa step port
 - 5) Explore abdomen with laparoscope and blunt grasper
- B.
- 1) Open the abdomen
 - a. Demonstrate proper use of 10, 15, and 11 blades
 - b. Demonstrate proper use of electrocautery
 - c. Demonstrate proper use of skin forceps and tissue forceps
 - 2) Close the abdomen
 - a. Running
 - b. Interrupted figure of eight
 - c. Skin stapling

VII. EQUIPMENT NEEDED

- Suture
 - 2-0 silk ties
 - #1 double stranded PDS CTX
 - #1 single stranded PDS CTX
- Scalpel
 - 10,11, and 15 blades
- Debakey Forceps
- Adson forceps
- Suture scissors
- Needle drivers
- Laparoscopic tower, cameras, CO2, and light source
- Bladed trocar ports
- Versa Port ports
- Optical Ports
- Laparoscopic blunt Grasper
- Two pigs
- Knot tying board

VIII. REFERENCES

None

