Laparoscopic cholecystectomy has been effective in treating gallstone related diseases in which the gallbladder is removed. The surgeon will make a small incision in the right upper quadrant of the abdomen to remove the gallbladder. Hepatobiliary scintigraphy plays a significant role in determining whether or not the gallbladder is functioning adequately and if the gallbladder is needed to be removed by laparoscopic cholecystectomy.

### Objective

To determine what gastroenterologist prefer for laparoscopic cholecystectomy when using Tc99m hepatobiliary scintigraphy.

### Method

33 patients who were diagnosed with chronic cholecystitis from 2013-2017 were randomly selected to see whether or not they underwent laparoscopic cholecystectomy. The 33 patients with chronic cholecystitis fell within 3 categories:

1. Gallbladder ejection fraction (GBEF) <35%
2. No Gallbladder (GB) visualized after 1.5 hour but bowel visualized
3. Delayed Gallbladder visualization after 1 hour with bowel activity

### Results

- 24 out of 33 patients with acute or chronic cholecystitis ended up with laparoscopic cholecystectomy.
- 9 of out the 33 patients had no data or follow up on whether they had surgery.
- 8 out of 19 patients with GBEF <35% ended up with laparoscopic cholecystectomy.
- 9 out of 11 patients with NO GB after 1.5 hour but bowel visualization ended up with laparoscopic cholecystectomy.
- 2 out of 2 patients with delayed GB visualization with bowel had laparoscopic cholecystectomy

### Discussion

- 73% of the time a positive Hepatobiliary scan for acute or chronic cholecystitis would end up having the patient undergo laparoscopic surgery.
- No data or follow ups could be collected for the reminding 27% of patients due to our electronic medical record transition in spring of 2017.
- No gallbladder after 1.5 hour but bowel visualization had the highest percentage (81%) of the 3 categories for gastroenterologist in electing laparoscopic surgery.
- Delayed GB visualization with bowel was at 100% but due to the small sample size (N=2), results from this category is limited.
- Of note, there was no observed difference between CCK or fatty meal that determined laparoscopic surgery

### Conclusion

- Use of Tc99m hepatobiliary scintigraphy is pertinent on whether or not patients undergo laparoscopic cholecystectomy.
- Of the 3 categories, No GB after 1.5 hour but bowel visualization seems to be the highest choice for gastroenterologist.

### Reference