Same-day combined endoscopic retrograde cholangiopancreatography and cholecystectomy: Achievable and minimizes costs

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BACKGROUND: It is estimated that choledocholithiasis is present in 5% to 20% of patients at the time of laparoscopic cholecystectomy (LC). Several European studies have found decreased length of stay (LOS) when performing LC and intraoperative endoscopic retrograde cholangiopancreatography (ERCP) on the same day for choledocholithiasis. In the United States, common bile duct stones are usually managed preoperatively and typically on a day separate from the day LC was performed. Our aim was to evaluate LOS and total hospital cost for separate-day versus same-day ERCP/cholecystectomy.

METHODS: This was a retrospective study of patients undergoing ERCP and cholecystectomy during the same admission for the management of choledocholithiasis from 2010 to 2014 at Geisinger Medical Center. The separate-day group underwent ERCP at least 1 day before cholecystectomy and often underwent two separate anesthesia events, while the same-day group had ERCP and cholecystectomy performed on the same day under one general anesthesia event. The primary outcome measured was LOS.

RESULTS: The study population included 240 patients. There were 175 patients in the separate-day group and 65 patients in the same-day group. Median age was similar between the two groups. The separate-day group had a median of one minor comorbidity compared with zero within the same-day group using the Charlson Comorbidity Index. Overall, LOS for the separate-day group was 5 days compared with 3 days in the same-day group ($p < 0.0001$). There was no difference in conversion rates to open cholecystectomy between the two groups (14% in the separate-day vs. 12% in the same-day group). Total median hospital cost for the separate-day group was $102,537 compared with $90,269 in the same-day group ($p < 0.0001$).

CONCLUSION: Same-day ERCP and cholecystectomy is feasible and minimizes costs. Same-day procedures decreased hospital LOS by 2 days and had approximately $12,000 in cost savings. Future goals include a multidisciplinary protocol to study outcomes in larger numbers. (*J Trauma Acute Care Surg*. 2015;78: 503–509. Copyright © 2015 Wolters Kluwer Health, Inc. All rights reserved.)

LEVEL OF EVIDENCE: Therapeutic study, level IV. Economic study, level III.

KEY WORDS: ERCP; cholecystectomy; choledocholithiasis.

Common bile duct stones (CBDS) occur in 5% to 20% of patients with gallbladder disease.[1–4] During the last several decades, laparoscopic cholecystectomy (LC) has become the treatment of choice for symptomatic gallbladder disease. However, management of suspected CBDS still varies throughout the world, with several diagnostic and treatment modalities available and no clear standard for timing of intervention.

Options for evaluation and management of CBDS include endoscopic ultrasound, magnetic resonance cholangiopancreatography, preoperative endoscopic retrograde cholangiopancreatography (ERCP), intraoperative ERCP, postoperative ERCP, open exploration, and laparoscopic CBD exploration (LCBDE). LCBDE via cystic duct or choledochotomy requires advanced laparoscopic skills, is mainly performed at specialized academic centers, and often requires T-tube drainage if choledochotomy is performed. In the United States, ERCP is by far the mainstay for the treatment of CBDS. However, timing of ERCP related to cholecystectomy still can vary considerably. Historically in the United States, patients requiring both ERCP and cholecystectomy have these procedures performed on separate days and usually have ERCP preoperatively.

Cost containment for US health care is one of the most pressing issues today. One of the most effective methods of decreasing cost is to decrease hospital length of stay (LOS). Performing ERCP and LC on the same day is one potential method of decreasing LOS and potentially decreasing health care expenditures. Several European studies have found improved outcomes with combined intraoperative ERCP and LC (one-stage treatment) compared with a traditional two-stage treatment (preoperative ERCP followed by LC).[5–7] The aim of this study was to assess the efficacy of same-day/same-anesthesia event ERCP and cholecystectomy compared with patients who had ERCP and cholecystectomy on different days for the treatment of gallbladder disease with CBDS.

PATIENTS AND METHODS

With the use of electronic medical records, a review of practice patterns in patients surgically treated for CBDS at a tertiary care center was completed under an institutional review board–approved protocol. Data from patients with suspected CBDS admitted to the hospital were collected from January 2010 to February 2014. Inclusion criteria for the study were all patients who underwent preoperative ERCP and cholecystectomy during the same admission. These patients were divided into two groups: the separate-day group underwent ERCP at minimum 1 day before cholecystectomy, whereas the same-day group underwent ERCP on the same day as cholecystectomy. Patients excluded from this study included patients who underwent ERCP following cholecystectomy and patients who did not have both procedures performed during the same admission.

During the study period, three gastroenterologists performed ERCP. In patients who had separate-day procedures, the practice at this institution is to perform ERCP in the endoscopy suite and under general anesthesia in the majority of cases. For patients having same-day procedures, some patients had ERCP performed in the endoscopy suite and were then transferred directly to the operating room intubated for cholecystectomy, and some patients underwent both procedures in the operating room. This was based on both staff and room availability. CO_2 insufflation for ERCP was universally used for rapid absorption to prevent bowel distention causing inadequate visualization during cholecystectomy. Operative notes of all patients requiring conversion to an open operation were reviewed to determine reason for conversion.

The following parameters were analyzed: ERCP success rate, ERCP positivity, post-ERCP complications, including pancreatitis, conversion of LC to an open approach,

TABLE 1. Patient Comorbidities/Diagnosis

Variable	ERCP Before Surgery (n = 175)	ERCP Same Day as Surgery (n = 65)	*p*
Age	66 (50–79)	65 (43–77)	0.5806
Female	94 (53.7%)	41 (63.1%)	0.1938
Diabetes	38 (21.7%)	8 (12.3%)	0.0999
Cardiovascular	56 (32%)	20 (30.8%)	0.8555
Renal	38 (21.7%)	7 (10.8%)	0.0535
Pulmonary	34 (19.4%)	12 (18.5%)	0.8657
Hypertension	89 (50.9%)	28 (43.1%)	0.2839
Charlson Comorbidity Index	1 (0–3)	0 (0–2)	0.0498
Diagnosis			
Cholecystitis	88 (50%)	32 (49%)	0.8845
Gallstone pancreatitis	26 (15%)	14 (22%)	0.2171
Choledocholithiasis	56 (32%)	19 (29%)	0.6808
Cholangitis	5 (3%)	0	0.3273

intraoperative complications, total hospital LOS, mortality, discharge destination, and hospital cost. ERCP success was defined as the ability to cannulate the CBD and complete the ERCP procedure. ERCP positivity was defined as identification of CBDS or sludge. Professional and hospital charges were collected from CDIS (Clinical Decision Intelligence System) database.

Statistical analysis was performed using the SAS 9.3 software program (SAS Institute, Inc., Cary, NC). Data are presented as median and interquartile range. Categorical data were compared by X^2 or Fisher's exact test. Mann-Whitney U-test was used to compare continuous data. Independent variables were considered confounders when $p < 0.20$. Multivariate regression models were created to adjust for confounders (sex and the Charlson Comorbidity Index). Linear regression was used to analyze continuous data with log transformations being performed when normality assumptions were violated. Logistic regression was used to analyze categorical data. Poisson regression was used to analyze LOS. All tests were two sided, and $p < 0.05$ was considered significant.

RESULTS

A total of 240 patients underwent ERCP and cholecystectomy during the same admission during the 4-year period. One hundred seventy-five patients had ERCP/cholecystectomy on separate days, and 65 patients had ERCP/cholecystectomy on the same day. Patient demographics are depicted on Table 1. With the use of the Charlson Comorbidity Index, patients in the separate-day group were found to have a median of one minor comorbidity compared with zero within the same-day group ($p = 0.0498$). Preoperative diagnoses between the two groups were similar (Table 1). There was a decrease in LOS between the separate-day and the same-day groups (5 days vs. 3 days, $p < 0.0001$, Table 2). The number of preoperative hospital days spent in the separate-day group was 3.2 days and 1.4 days in the same-day group ($p < 0.001$). Conversion rates were similar between the two groups (Table 2). Of the 32 patients within the entire study who required conversion to an open operation, 30 were secondary to adhesive disease from previous abdominal operations or significant gallbladder inflammation with concerns of patient safety. No conversions were secondary to bowel distention. Operative time for the separate-day group was 89 minutes (Table 2). Operative time for patients in the same-day group who underwent ERCP in the endoscopy suite (n = 35) was 88 minutes, and for patients who had ERCP/cholecystectomy as a combined procedure in the operating room (n = 30) was 126 minutes (Table 2). Two in-hospital mortalities were reported in the separate-day group. There was no difference in the morbidity rates between the two groups (data not shown). Ninety-one percent of the patients in the same-day group were discharged home compared with only 79% in the separate-day group. Professional charges in the separate-day group had a median of $24,756 compared with $22,437 in the same-day group ($p = 0.0002$, Table 2). Hospital charges in the separate-day group had a median of $79,216 compared with $70,330 in the same-day group ($p < 0.001$). The median total hospital charges were $102,537 in the separate-day group and $90,269 in the same-day group ($p < 0.001$). On risk-adjusted evaluation, LOS as well as professional and hospital costs remained significant (Table 2).

ERCP outcomes were studied for the groups. In the separate-day group, ERCP success rate was 95% and positive (CBDS identified) 91% of the time (Table 3). Thirty-six patients underwent repeat ERCP, 31 for stent removal (28 biliary and 3 pancreatic) and 1 for clinically retained stones (Table 3). No one in the separate-day group developed post-ERCP pancreatitis. In the same-day group, ERCP success rate was 100% with a positive result in 63 patients (97%). One patient developed post-ERCP

TABLE 2. Outcomes

Variable	ERCP Before Surgery (n = 175)	ERCP Same Day as Surgery (n = 65)	Unadjusted *p*	Risk-Adjusted *p*
Conversion Rate	24 (14%)	8 (12%)	0.7757	0.8623
Operative times (minutes)	89 (68–125)	88 (70–119) (ERCP performed in Endoscopy)	0.4853	0.4570
		126 (69–169) (ERCP performed in Operating room)	0.0938	0.0874
LOS	5 (3–7)	3 (2–7)	<0.0001	<0.0001
Mortality	2 (1.1%)	0	0.9999	0.9577
Discharge home	138 (79%)	59 (91%)	0.0325	0.1136
Professional cost	$24,756 ($21,705–$28,699)	$22,347 ($19,361–$25,135)	0.0002	0.0013
Hospital cost	$79,216 ($66,579–$103,722)	$70,330 ($53,149–$83,493)	<0.0001	0.0007
Total cost per patient	$102,537 ($87,904–$133,212)	$90,269 ($74,132–$109,283)	<0.0001	0.0007

TABLE 3. ERCP Outcomes

Variable	ERCP/Cholecystectomy Separate Days (n = 175)	ERCP/ Cholecystectomy Same Day (n = 65)	*p*
ERCP success	166 (95%)	65 (100%)	0.1183
ERCP positive	151 (91%)	63 (97%)	0.5163
ERCP pancreatitis	0	1	0.2708
Repeat ERCP	36	4	0.0077
Stent removal	31	4	0.0241
Retained CBDS	1	0	0.9999

pancreatitis (Table 3). In the same-day group, a total of 35 patients (54%) had ERCP performed in the endoscopy suite followed by transport to the operating room for cholecystectomy, and 30 (46%) patients had ERCP performed in the operating room in conjunction with cholecystectomy. In the same-day group, four patients had repeat ERCP for stent removal (four biliary stents and one pancreatic); no patients had retained CBDS (Table 3).

DISCUSSION

Choledocholithiasis is a common problem for clinicians and is present in up to 20% of patients who are to undergo LC.[1–4] Operative management includes open CBD exploration, LCBDE, or ERCP. During the last several decades, there has been a push for less invasive procedures, and ERCP has become the preferred method for dealing with CBDS. LCBDE can be time consuming, requires advanced training, and if choledochotomy is performed, often requires T-tube drainage. Open CBDE is less optimal because of the morbidity of open operations and increased pain compared with less invasive procedures. The combination of ERCP and LC has become standard of care with open operations reserved for significant gallbladder inflammation with safety concerns, immediate management of complications, or unavailability of ERCP. The timing of ERCP in relation to LC is still a matter of debate.

The safety and efficacy of a one-stage approach combining ERCP and cholecystectomy has been studied in Europe with favorable outcomes.[5–7] The Europeans are proponents of an intraoperative rendezvous technique. After a positive intraoperative cholangiogram, a pliable wire is passed through the cystic duct and is then grasped via endoscope to facilitate biliary sphincterotomy. Proponents of this approach feel that the rendezvous decreases occurrence of failed ERCP and may prevent ERCP-related pancreatitis, as the pancreatic duct is not cannulated.[6–9] This intraoperative rendezvous technique has been shown to decrease LOS in several European studies.[5–7,9] In a prospective study, Lella et al.[8] evaluated 256 patients and reported a significant decrease in ERCP-associated pancreatitis using the rendezvous technique. There were no episodes of acute pancreatitis with this approach compared with six patients who developed acute pancreatitis with the two-stage procedure.

Same-day ERCP/cholecystectomy has not previously been shown to be beneficial in the US health care system. Two small studies found no difference in outcomes including LOS or operative complications in single-stage versus two-stage procedures.[10,11] In a small comparison trial of 20 patients, Jones et al.[11] found a cost savings of $20,000 for single-stage procedure but no difference in LOS or complications.

Cost cutting and decreasing hospital LOS is a major initiative in US medicine. In early 2012, our hospital adopted a new initiative to have all gallbladder-related admissions undergo cholecystectomy within 24 hours of admission when clinically ready. A natural next step in this algorithm was for patients who had suspected CBDS to undergo same-day ERCP and cholecystectomy to potentially decrease hospital LOS. This initiative led to approximately one third of our cohort undergoing same-day procedures. Patients undergoing same-day ERCP and cholecystectomy had no difference in intraoperative conversion rates and decreased LOS. Of the 32 patients who required conversion to an open operation, only two were secondary to complications. The remaining 30 patients required conversion secondary to adhesive disease from previous abdominal operations or significant gallbladder inflammation with concerns of patient safety. No conversions were secondary to bowel distention from ERCP. Intraoperative ERCP before cholecystectomy increased operative time by only 37 minutes when comparing the separate-day group (89 minutes) with the same-day group that had both procedures performed in the operating room (126 minutes). In addition, a larger number of patients in the same-day group were able to be discharged home (91% vs. 79%). A lower Charlson Comorbidity Index within the same-day group potentially contributed to this finding. Alternatively, this finding may be secondary to patient characteristics not collected, such as preoperative functional status or frailty. Further studies are needed to confirm this finding. Patients undergoing separate-day procedures were subjected to increased invasive procedures as majority of these patients required two separate anesthetics/intubations.

This multidisciplinary management required coordination of gastroenterology, anesthesiology, and surgery services. Once a patient was identified as needing ERCP and cholecystectomy, the operating room control desk was notified. The operating room then coordinated with anesthesia for ERCP in the endoscopy suite followed by operative intervention or to have both procedures performed within the operating room. Therefore, one limitation of the study is that implementation at different facilities may be difficult based on infrastructure demands. Ideally, all ERCPs should be performed in the operating room before cholecystectomy to minimize patient movement.

Our gastrointestinal group does not use the rendezvous technique. However, only one patient in our entire cohort developed post-ERCP pancreatitis. The use of pancreatic stents in a small number of patients who had inadvertent cannulation of the pancreatic duct (n = 4) potentially contributed to this low rate of post-ERCP pancreatitis. There was a decrease in the use of biliary stents in patients undergoing same-day procedures (6%) versus separate-day procedures (18%, $p = 0.007$). Potentially this finding is secondary to the understanding that patients were going for immediate cholecystectomy and had minimal chance of passing new stones in the same-day group. Proponents of the rendezvous technique feel their technique increases the likelihood of successful ERCP as most endoscopists find performing ERCP in the supine position to be more difficult.[12] Two of our gastroenterologists prefer to perform ERCP in the prone

position while under general anesthesia in the endoscopy suite. However, in the current study, performing ERCP in the operating room with the patient in a supine position did not impact success rate. Success rate for intraoperative ERCP before cholecystectomy was 100% (n = 30).

Cost analysis is important to show that this initiative does impact a change. Jones et al.[11] examined the cost with one-stage treatment. These authors found a reduction in hospital charges with the one-step approach, with a cost savings of approximately $20,000. Consistent with this previous literature, the current study found cost savings in both professional fees and hospital charges. Median total hospital cost savings per patient in the same-day group was approximately $12,000. With the ever-changing dynamics of the American health care system, it is important to develop an approach that is cost-effective, is safe, positively impacts the way that health care decisions are made, improves patient care, and increases patient satisfaction.

There are some limitations to our study. Our patient population is from a single institution. In addition, the retrospective nature of our study has inherent selection and information biases. The new gallbladder initiative was introduced mid study period, which could have confounded our results. However, patients in the separate-day group had similar LOS before and after implementation of this new gallbladder initiative. Prospective trials should be undertaken to prove the benefit of same-day ERCP/cholecystectomy compared with separate-day procedures. In addition, for future studies, it may be useful to have both procedures performed in the operating room to minimize anesthetic time and potential problems related to patient transport.

Combined ERCP and cholecystectomy performed under one anesthesia is safe, minimizes costs, and was found to decrease overall LOS. Implementation of such a protocol in the current health care setting requires a multidisciplinary approach, involving coordination between gastroenterology, anesthesia, and acute care surgery services. Future goals include a multidisciplinary protocol to prospectively study outcomes in larger numbers.

DISCLOSURE

The authors declare no conflicts of interest.

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DISCUSSION

Dr. Michael Chang (Winston-Salem, North Carolina): At first glance, review of the title of this manuscript most likely evokes two different reactions from members of the audience: "the findings of this study are intuitively obvious and can be easily predicted" and "why didn't I think of that myself?"

I would say our gut instincts are probably correct in that the findings of this study are exactly what we would predict: that length of stay is shorter when both procedures are done on the same day, under the same anesthetic. However, as the landscape of medical care continues to shift quickly, I think this study is important because of what I think it represents.

Those of you in the audience who are involved in your own institution's transformation and preparations for World 2, however we want to define World 2, will recognize that this study comes from a medical system that is leading the way in terms of institutional evolution and adaptation to the changing environment.

They embraced the electronic medical record early-on. They adapted it to facilitate streamlined care and effective care pathways. And they've been quite successful in implementing measures and an ethos geared towards minimizing variability in care as a key tool towards improving quality, performance and outcome.

If you looked at their slides, the slogan displayed at the bottom of each slide from their presentation is "Redefining Boundaries," which I think illustrates the progressive institutional perspective of this medical system.

One transformational change, and many institutions are now embracing, is the idea of rearranging care into a patient-centered, service-line oriented structure. In other

words, grouping practitioners by disease process as opposed to which board they are certified by, what department they live in, and so on, is thought to be a more patient-centered way to provide cost-effective and patient-centered care.

For example, it stands to reason that a gastroenterologist, in many ways, has more in common professionally with a general surgeon than they do with a cardiologist, although they may live in the same department of internal medicine.

Pockets of this type of organization have existed for decades. But whole-scale institutional organization in the format of service lines and shared services, with or without traditional department structure, is a new concept.

Given this background I am wondering if the study actually represents much more than simply doing two invasive procedures under one anesthetic. I am wondering if it actually represents an example of improved efficiency due to reorganization of providers and a fresh approach to dispensing invasive care.

Certainly, the findings have important financial impact as it is estimated that shaving one-tenth of a day off a large institution's cumulative length of stay can translate to $3 million a year in savings. So from a more administrative and perhaps less scientific perspective three questions come up:

What barriers did the authors encounter as this practice change was implemented? How did you overcome or circumvent those barriers? And I didn't really address this, but I know all of you are thinking it: is this study an argument that acute care surgeons should start to learn and incorporate ERCP into the scope of their practice?

I would like to thank the Program Committee for the privilege of the floor.

Dr. Samir M. Fakhry (Charleston, South Carolina): I enjoyed the presentation very much and I had two questions for you, please.

If I understood correctly, the ERCP was being performed in a different location than the operation, and the patient was then transported from one place to the other. Or did you perform both in the same location in a hybrid-type operating room?

My second question was similar to what Dr. Chang just mentioned. Among the first to perform ERCP in the United States was a surgeon, Dr. Paul Shorb, in Washington, DC. Should we be learning ERCP and just doing this all at once ourselves in keeping with the acute care surgery paradigm?

I realize that's kind of a trick question but I'm interested in what you think. Thank you.

Dr. Donald N. Reed, Jr. (Fort Wayne, Indiana): I happen to do my own ERCPs, as I know some institutions have that surgical capability like Louisville and Detroit. But most institutions, I think, are still dependent upon gastroenterologists. As the previous discussants have mentioned, lining up that procedure with another service can be difficult. I am interested in how the authors circumvented that particular problem.

When we have tried this, bringing a C-arm into the operating room, on top of all the laparoscopic equipment in what has become a rather crowded operating room becomes a particular problem. And I am interested in how the authors overcame that.

In addition, when I try to schedule an ERCP, it's almost more difficult than the lap-chole, and particularly in the acute care setting where they end up being at the end of the day and as an add-on and the OR can be busier or as busy as the endo lab. So I am interested in the authors' opinion of that.

Otherwise, I agree with their conclusion. When it is successful it is probably a big benefit. Thank you.

Dr. Carl J. Hauser (Boston, Massachusetts): Thanks. Very nice paper. I'm a little jealous since, like Mike Chang, I also tried to do this but immediately ran into problems in that our gastroenterologists had their own little setup and didn't want to move.

So why not, as has been mentioned, create a hybrid suite where one can do an ERCP prone and have a second OR table and simply flip the patient over onto the table instead of taking them from place to place intubated? That seems quite simple to do.

The second problem I ran into was resistance from our own acute care surgeons who said, "Well, I don't want to do the lap-chole with the intestines all insufflated."

My questions there are: did you have problems with insufflation and difficulty obtaining access and, if you did, there are systems for insufflating the gut with CO2 which is more rapidly absorbed. Did you do that?

Very nice paper. I am very impressed.

Dr. David Harrington (Providence, Rhode Island): I was interested in the 90% positive rate of ERCPs. That's a little higher than our experience has been for these people. And I guess it comes down to how they define biliary obstruction.

Was the bilirubin 1, 2, 3, 4? Because, like I said, some of these will be negative ERCPs and so if there is a lot of negative ERCPs there will be a lot of added cost so what was the definition of biliary obstruction?

Dr. Jeffrey L. Wild (Danville, Pennsylvania): Thank you, Dr. Chang, and members. I will try to address all these questions.

So, initially what barriers did we run into and how did we overcome them? I think early-on in the course, as with any change, there is always resistance, resistance from the OR, from the GI, endoscopy suite.

But I think what really started this process was that the endoscopy suite was closed on the weekends and all ERCPs were performed in the operating room. Then we were taking patients the following morning back to the operating room to take out their gallbladder. And so some of my senior partners asked why aren't we doing these at the same time?

Any change takes time. I think it is becoming more accepted, especially with our outcomes that we have shown. And our endoscopy partners are very willing at this point to assist and do the procedures where we have space.

I will talk a little bit about where they were done. There were 65 patients that had both procedures done on the same day. And about half of them were done in the endoscopy suite and they were brought to the operating room. These patients were intubated in transport and, obviously, that is of concern.

Moving forward, we would like to have this done in the operating room where the GI physicians can bring their endoscopy equipment. Looking at our outcomes, this really didn't lengthen the OR time by that much, about 30 minutes in general.

Should we incorporate ERCP into our practice? As a young acute care surgeon, I see that we deal a lot with this disease process and we count on our gastroenterologists to perform a lot of these procedures. Some of my senior partners

were trained to do ERCP, although at this point, they don't do it within the hospital. I'm not sure if we would ever get that back.

How do we coordinate between services? This can be tricky at times. Normally, when these patients present in the morning to the emergency department, acute care surgery is consulted. We see the patient. We talk with the GI attending and the OR control desk, initially. If these procedures are being performed in endoscopy suite, there is anesthesia involvement because these are done under general anesthesia at our institution.

And so really it's coordinating to make sure there is a room available, if it is done there, to transport the patient to once they are done with ERCP. But it also requires that you have a surgeon available to do the operation at that time as well. We have one surgeon on the acute care surgery service at a time. But there are always two trauma surgeons that are on call as well, so there are ways to make it work and get it done during the same day.

In regard to using insufflation and concerns of visualization during an operating following endoscopy, all of our endoscopy is done under CO_2. We found that we had no problems with visualization during the operation. There was no distended bowel. That was not of concern.

What we defined as biliary obstruction was, again, based on liver function tests, based on ultrasound findings. But I agree that our positivity for this cohort is probably higher than it normally would be because, really, what we did is we looked at patients that had both ERCP and cholecystectomy done during the same hospitalization.

So patients we missed would be patients that underwent ERCP for suspected biliary obstruction and stones and were found to have something else or found to have nothing at all and didn't undergo cholecystectomy. I think our positivity is a little higher than it normally would be.

Thank you.