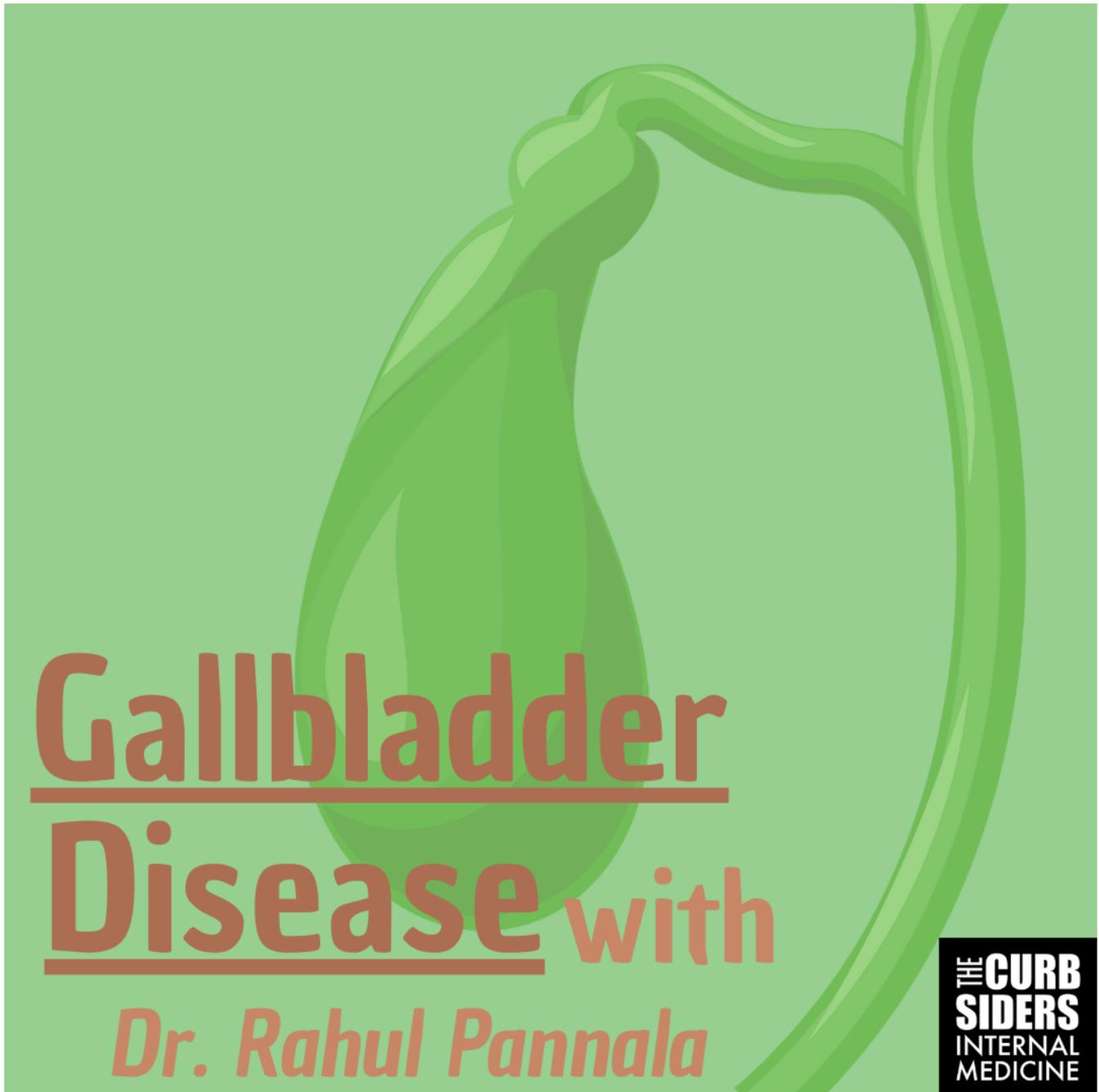


#340 Gallbladder Disease



[Curbsiders Podcast theme]

Paul: Welcome back to the Curbsiders. I'm Dr. Paul Williams. I am joined by my cohost tonight, Dr Molly Heublein and Dr. Nora Taranto. Molly, how are you?

Molly: I'm doing great, Paul. Thank you.

Paul: And Nora, how are you doing?

Nora: Really well.

Paul: Great.

[laughter]

Paul: Quite convincing, Solid. Good talk. This really captures the chemistry on the rest of the episode, which is where we talked to the great Dr. Rahul Pannala about the management of gallbladder disease, his workup and approach, and how he goes from diagnosis to actual management. In just a moment. I'll let Dr. Molly Heublein tell us all about our guests a little bit more about the topic. But before we do that, Nora, will you remind the audience what we do on the show?

Nora: Indeed, I will, Paul. We are *the* Internal Medicine podcast and we use expert interviews to bring you clinical pearls and practice changing knowledge.

Molly: We have a fantastic conversation with our guests Dr. Rahul Pannala. He's an Associate Professor of medicine and Consultant Gastroenterologist at the Mayo Clinic in Arizona. He's the Director of Pancreas Clinic and Endoscopic Bariatric Therapeutics program at the Mayo Clinic in Arizona. His clinical and research interests include pancreaticobiliary diseases and endoscopic bariatric therapies. His other interests include gut global health and innovation in medical device spaces. So we had a great conversation about gallbladder disease, focusing initially in the outpatient realm, and what kind of history you are looking for, to feel confident about symptomatic gallbladder disease, complications after gallbladder surgery, and then briefly reviewing inpatient evaluation for gallbladder diseases. Without further ado, let's get to it.

Paul: Rahul, thank you so much for joining us. We usually start with some rapid-fire questions to get to know you a little bit better. So, before we start, could you give us a one liner to describe yourself ideally, including something that's outside of medicine.

Rahul: Yeah, it's great to be here. I'm 45 years old. I'm a dad of three and I live in Phoenix, Arizona or Sunny Phoenix, Arizona with my wife. I love to travel, I love to teach, and do photography.

Paul: COVID notwithstanding, so, what's your favorite place that you've traveled to in the past? Let's give it say five years.

Rahul: I think my favorite place is Ethiopia and it's absolutely the most beautiful, beautiful country. It's the birthplace of coffee, which I like.

[laughter]

Molly: Excellent.

Paul: Too critical.

Rahul: Yeah.

Molly: I know you were thinking a lot about this one. Do you have a favorite failure that you'd feel comfortable sharing with us and what you learned from that?

Rahul: Oh, there have been many. But I think one of the things is, when I first came on staff, I was trying to get a project off the ground. You're a young staff with lots of enthusiasm, and you try to keep going, and didn't work out. I think that it taught me to really step back, listen to everybody around the table, get lots of opinions and thoughts and take on people for the ride, and then they'll be with you.

Molly: Always a good advice.

Rahul: Yeah.

Nora: Do you have any favorite books that you would recommend to learners or just generally that you would recommend that you've been enjoying recently?

Rahul: I used to read a lot of fiction, but these days, I'm reading more about, I guess, leadership and stuff, I think. The one book that has really touched me is *Start with Why*. Always stop and ask the question why in anything that you're doing and really, I think that opens up your perspectives.

Molly: I haven't heard of that one, actually.

Paul: That might be a new one, strong words.

[laughter]

Molly: Is that like, why am I doing this or why is this problem here?

Rahul: It's more like, no, I guess, let's say, there's a proposal or there's something that we want to do, I think just stopping and asking, "Why do we want to do this or what is the problem we're trying to solve?" It's one of those leadership books but I think it has relevance way beyond the standard leadership issue books?

Nora: Yeah, excellent.

Paul: But it sounds less like an existential, why am I here? That too.

[laughter]

Paul: All right. Well, great. I think that is excellent and with that I think that we can probably move on to a case. I think we're starting with Eve. So, Molly, why don't you tell us about Eve, and what is going on with her, and figuring out how we're going to help her?

Molly: Excellent. Eve is a 46-year-old woman who presents to clinic complaining of intermittent abdominal pain. She describes having two episodes. One, two months ago and one last week where she experienced severe upper abdominal pain associated with some nausea, but no vomiting. These occurred after dinner, and it made it hard for her to sleep, and lasted a few hours. She has tried taking an antacid for this and wasn't really sure if it made a difference in her pain. She has a history of GERD for which she takes a PPI and looking back at her chart, she's had a few visits and prior evaluations for abdominal pain over the past 10 years which were unrevealing but she reports that these recent episodes felt different.

Besides the PPI, she also takes a combined estrogen-progesterone birth control pill. On exam, her vitals are normal, her BMI is 27, and she had mild diffuse upper abdominal tenderness to palpation with no masses or rebound. So, to start off, since we're talking about gallbladder disease today, can you talk to us about what the function of the gallbladder is and why do gallstones develop in some patients?

Rahul: Yeah, the gallbladder, we don't always think about it, but it's a reservoir that really concentrates bile and enables the delivery of highly concentrated bile in a very regulated fashion to the intestine to the duodenum. Structurally, I think it's important to have as most of your listeners would know, it connects to the common bile duct with the cystic duct reaches this sort of, has these valves which regulate the flow of bile. Gallstones can develop for a variety of reasons. Gallstones are very common. The most common cause for gallstones is stasis of bile and can happen with a variety of reasons. One is patient factors. Increasing age, obesity is a big risk factor. Medications can be a big risk factor. Several medications including birth control pills as in this example or in this patient.

Then there are some specific situations where you can think about gallstones probably more germane for the hospitalized patient, like patients on longstanding parenteral nutrition, some specific populations that are very high risk, native Americans, Mexican American population. So, that's the general risk factors for gallstones.

Paul: That's extraordinarily helpful and I think we made this case. We know we're doing a gallstone presentation. We throw in some stuff. Molly made this a little bit tougher funnies. We have this patient who has GERD, who has a PPI, who's been coming in with abdominal pain that maybe or maybe it is not different. So, I'm wondering in this particular patient, you gave us some risk factors, but overall, can you tell us what historically with Eve here and what historically in general when we see more towards gallbladder disease versus something like dyspepsia or functional abdominal pain?

Rahul: Yeah, no, that's a critical question. I think this is one of those where history and getting an accurate history is very helpful here. It's very helpful where Eve has a fairly, I would say, typical presentation. Her pain starts after about 30 minutes or so after she eats. Gallbladder pain or biliary pain is not subtle. It can be fairly severe pain and patients usually describe a crescendo pattern. It really builds up and then eases up a little bit, and then really comes back up.

The other thing is time. Gallbladder pain or biliary pain lasts for at least 30 minutes, probably up to a few hours. They're usually up at night, because typically it's after a big meal in the evening. They're up all night, they'll give you that history. If you really probe, they've had similar episodes of pain leading up to that larger or the more severe attack. Maybe they didn't think that much about it.

Now, differentiating it from other causes of pain like dyspepsia, things like that can be very helpful. The other really clinical pearl is that other symptoms such as bloating, and gas, and flatulence, typically are not associated with really solid biliary colic. So, teasing those symptoms out can be helpful.

Nora: Is there anything you'd look for on physical exam specifically to differentiate?

Rahul: Yeah, physical exam really depends on when you're doing the exam. I'm typically assuming that the patient comes to you after the attack or let's say the next day or something. You can get nonspecific physical exam, diffuse tenderness a little bit. It's very hard to elicit a right upper quadrant tenderness, because the origin of biliary colic, if you think about it is intermittent obstruction of the cystic duct. So, that usually has passed once the pain has passed. They usually describe, "You'll get some diffuse tenderness, but without any rebound or guarding."

Molly: And is nausea and vomiting common?

Rahul: Nausea is very common in biliary colic, typically. Vomiting can be variable, but typically a patient will report nausea with pain.

Nora: Patients usually if you probe them able to localize it to the right upper quadrant or it may be more diffuse?

Rahul: Yeah, location can be quite may or may not be helpful. Many times, the patients report diffuse abdominal pain, many times it can be epigastric. It can be right upper quadrant and if it is it's somewhat helpful, but I would say it doesn't have to be right upper quadrant.

Nora: And I saw some descriptions of radiating to the back being possibly more associated with gallbladder pain. Is that something that you see or--?

Rahul: It can be quite variable, honestly, the pain characteristics and the location of the pain. I think if the pain is in the right upper quadrant and is radiating to the back, I think the two things that come to mind are gallbladder and pancreatic pain. The straight shooting up to the back part typically is more characteristic of pancreatic pain. Now, if a gallstone is stuck in the distal bile duct and causing something like that, you could see that, but it can be variable.

Paul: In terms of the workup for this patient, I can imagine a different number of ways this could go. I can see someone maybe just checking, say, hepatic function tests, maybe a CBC to rule out microcytic anemia. Other people might just do the PPI. I think some people would maybe go for the ultrasound right out the gate. So, for someone and probably by the time they get to you in practicality, a lot of this

has been done. But let's say, you're getting this patient de novo for the first time, what would your workup look like for you?

Rahul: Yeah, I think Eve here is presenting with fairly typical biliary colic. I think the hepatic function panel is a reasonable thing to do and I think I would do an ultrasound. I think it's very important to point out that the ultrasound is really the initial test that is recommended by all guidelines and gives us a ton of information.

Nora: Are there any patients in whom you would not get any labs or imaging?

Rahul: If the nature of pain that is being described as more like a dyspepsia and you have no other risk factors, there're no alarm features, anything like that, then young patients without anything else really, I think we can treat symptomatically.

Molly: You've mentioned the ultrasound being the primary imaging modality. Are there times when you would order other testing for images?

Rahul: Yeah, typically, I think for the vast majority of patients, ultrasound will give us a lot of information. Occasionally, we would get a CT scan or an MRI scan very selectively. I think if you're talking about gallstones, if there's concern for a stone in the common bile duct, let's say, their liver tests are really high and the ultrasound is not revealing or is showing only stones without any significant inflammation, ultrasound is not that great for common bile duct stones. It's great for gallbladder stones. But let's say, your patient's continuing to have pain, and it's not relenting, or the liver tests are really high, then I think we need more information. In that sense, MRI with MRCP probably has the highest sensitivity and in those selected patients that's probably what I would do.

Nora: And most people will have multiple stones. So, even if they've passed one, you would probably still see some leftover. Is that true or--?

Molly: Theoretically, they could have just one that caused an episode and then they're fine.

Rahul: Yeah, theoretically, most people would have multiple gallstones. The biliary colic, I think, it's important to differentiate from a gallbladder stone, from a common bile duct stone. Common bile duct stone, when they pass it, it's fairly significant pain. They usually have a bump in their liver tests and it tends to decrease. But gallstones typically in the gallbladder, patient will have multiple, usually.

Nora: And one more question about imaging.

Paul: [laughs]

Nora: Sorry, because I-- [crosstalk]

Paul: [crosstalk] an interrogation.

Rahul: [laughs]

Nora: I've had a couple of interns actually ask me this question. So, I'm just going to punt it to you.

Rahul: Okay.

Molly: That's why he's here.

Rahul: Go for it.

Nora: Say we have a patient who got a CT and they're having this poorly characterized abdominal pain that we think could be biliary colic. Is there any added utility to getting right upper quadrant abdominal ultrasound after a CT you've already gotten?

Rahul: The answer is actually yes-

Nora: Okay.

Rahul: -because CT is not great for gallstones or sludge in the gallbladder. And ultrasound actually is a much better test in terms of sensitivity and spasticity. If you're suspecting stones or sludge in the gallbladder, when you look at CT, ultrasound, and MRI, I think the take home message is, ultrasound is great for gallstones and sludge in the gallbladder. MRI is great to identify stones or really evaluate the common bile duct and the pancreatic duct. CT, I would do it in two instances. One is, if the diagnosis is not clear, you want to rule out pancreatitis, you want to rule out something else, or you're really suspecting a complication of gallstone disease. They're really sick patient, perforated gallbladder, unique situations that way. So, that's how I typically use these tests. Hope that answers that question.

Nora: Definitely, it does. Thank you.

Molly: Okay. Let's move on to the case. Eve gets her outpatient ultrasound, which was normal except for some non-obstructing gallstones. You tell her the results and she reports that her mom had a cholecystectomy and had a lot of complications afterward, and she really would rather avoid surgery. So, what are the chances of having a complication from her cholelithiasis if she chooses to avoid surgery? What are her chances of progressing to something like gallstone pancreatitis or acute cholecystitis?

Rahul: Yeah, no, I think it's a great question. I think that one is Eve's mom had gallstone, so there's a genetic predisposition and probably mom had her gallbladder out because she had problems. So, there is definitely a genetic predisposition. In terms of if you take asymptomatic gallstones, people just walking on the street, and you do an ultrasound, and you have a gallstone, only about a quarter of them do get into trouble over a 10-year period. That's where the recommendation of just watchful waiting for and not doing a cholecystectomy for asymptomatic patients comes from. The vast majority of them do fine. But in Eve's case, she's already had biliary colic. There's at least a 30% chance that she's going to

continue to have biliary colic. So, the risk of a serious complication is about 1% to 2% based on the studies. Roughly about 2% will have cholecystitis or significant serious complications.

Nora: Is that per year?

Rahul: It's per year.

Nora: Okay.

Rahul: Yeah.

Paul: Yeah, I guess, it's a variation on that question. For me, this is almost a bit of a nightmare scenario, just because gallstones are so common on ultrasound. I guess, I'm wondering, how confident are you in your diagnosis that this represents symptomatic cholelithiasis, once you actually have this ultrasound that doesn't show cholecystitis or any other changes just the presence of gallstones, do you feel great about where we're at right now or would you want more confirmatory information of any kind?

Rahul: Yeah, I think it's a moderate degree of confidence is the best way to characterize it. I don't know that-- [crosstalk]

[laughter]

Paul: No, I didn't need a number. That's fine.

Rahul: I don't know that additional testing will really help. I think if she had elevated liver chemistries, maybe that might tip the balance, but then you would wonder why and has she passed a stone into her bile duct? She has typical biliary colic. She has a stone in the gallbladder, no other etiologies though. She's on a PPI and there's this history of abdominal discomfort over the past few years. So, it's a little unclear what that truly is, but she tells you that this is different. So, I would say I think I feel moderately certain.

[laughter]

Paul: I like those odds, that's great. Thank you.

Nora: In the meantime, while she is deciding whether or not to get the surgery, are there any medications or lifestyle changes that she can make to reduce her chance of having more symptoms?

Rahul: Yeah, medications, the short answer is no. There's really no medication has been shown to decrease the risk of complications. The whole era of gallstone dissolution therapy has come and gone, and most people don't even know about it anymore. The short answer on medications is no. You could try symptomatic treatment. PPIs can sometimes be helpful anecdotally. I think in terms of lifestyle, it can be quite helpful. I think diet is the most immediate thing that she can make a change. Eating a moderately low-fat diet, meaning, trying to avoid saturated fats, things like that, which can precipitate

biliary colic. I see that her BMI is 27. Obesity is a risk factor. Patients with obesity or overweight can try weight loss strategies though that's more of longer-term strategies. Medications, again, she's on birth control pills that have been shown to increase the risk. But in this case, I don't think that that makes a big difference in the short-term while she's deciding.

Paul: There's a question that we had later on, I think, it actually might even fit here. Before we decide what we're going to do to Eve, would your decision-making change if you saw gallbladder sludge on the ultrasound instead of stones? Because I feel that's something that is also frequently reported, you're like, "Well, that's there."

[laughter]

Paul: And then what'd you do with that information? Does that change your differential or at least the likelihood that this is coming from the gallbladder?

Rahul: Yeah, I don't think that stones and sludge are necessarily different. I think if you see sludge in the gallbladder and patients have biliary colic that is characteristic, I would treat them both the same. Many times, it can be difficult to find sludge because it's so much harder to find. Sludge is probably a little bit more reflective of stasis syndromes, things like that. But in general, though, I will treat stones and sludge the same.

Molly: All right. Eve has another episode of pain and she decides she's ready to get her cholecystectomy. You refer her to a surgeon and she has an uneventful laparoscopic cholecystectomy. She follows up three months later, and reports she's struggling with bloating, diarrhea, and still some intermittent right upper quadrant abdominal pain. So, first, how common is diarrhea after a cholecystectomy and what should a primary care provider know about that or how could we address it?

Rahul: Yeah, great question. I think the best time to have the conversation is before we send Eve to the operation. This is post-cholecystectomy diarrhea. It's incredibly common. Depending on which paper you read, it can be anywhere from 5% to 15%, I think the one of the largest series that just was published last year. This was about 13%. Post-cholecystectomy diarrhea, it's not very well understood. The most likely scenarios that cause it are I think bile acid malabsorption.

And then there is some data to show that the transit of the gut changes and it becomes faster. Patients can report true frank diarrhea, increase in frequency in general bowel movements are softer bowel movements. But about 5% of patients really have disabling diarrhea and that's important to treat. Typically, we would treat with a bile acids sequestrant, whichever one that the patient tolerates. You can also use antimotility agents such as loperamide and similar medications. Those can be quite helpful. But typically, these symptoms get better over time. So, I think it's important to counsel patients about that.

Nora: What's the timeline for that that you would advise patients?

Rahul: Yeah, typically about three to six months. In that timeframe, I also would counsel patients about diet. So, eating a relatively low-fat diet can be quite helpful in terms of the diarrhea.

Molly: If someone's doing well on the bile acid sequestrants, do you have them wean off at some point to see if it's gone away or--?

Rahul: Yeah, there are no real guidelines on this. This is more of clinical, I guess, advice. Probably, about three to six months, I would take them off, see how they do. It's really hard to take bile acids sequestrants on a long-term basis.

Molly: Because they're multiple times a day or--?

Rahul: No. They have to take it, they have to separate it from other medications, it has to be taken with food. They're not the easiest medications to take. So, I think it's important for us to recognize that from a patient perspective.

Nora: And then regarding this pain, how common is post-cholecystectomy pain and is there a name for that?

Rahul: It is post-cholecystectomy syndrome.

[laughter]

Paul: You talk more about how you came up with that name?

[laughter]

Rahul: Oh. Yeah, no, it's—

Molly: Softball.

Rahul: It's a softball.

[laughter]

Rahul: It's definitely common. It's something that I think-- If you look at the studies, it's about 40%. It is quite common. We don't really have the greatest answers. I think it comes down to having careful patient selection and really goes back to what we were discussing earlier about getting that history about biliary colic, how certain are you that this is truly biliary colic, and waiting to see whether patients having multiple episodes, and they're consistent because lot of times what I see in my practice is, patient complains of some abdominal pain. It's not really clear what the diagnosis is and there's an empiric cholecystectomy and lo and behold, the pain is still there. It's really important to know pick out the right patient and even if you do, I think about 30% to 40% will have these lingering symptoms. They

can then transition to more gas, bloating, flatulence, those kinds of things. So, they're challenging clinical problem.

Paul: I know we promised this wasn't going to be the thrust of the episode, but while we're on the topic, is there any--? I guess, what sort of studies would you do after the fact or is there any work that you do just to make sure that you're not missing something else for a patient who's presenting with post-cholecystectomy pain?

Rahul: Yeah, I think that's a great point. What I would do is really break it down by time and the severity, I think is the best clinical pearl I can give. If your patient had had a cholecystectomy, a few days before or a week before and now is complaining of pain, especially fairly severe pain, then we need to really think of an organic cause. It's either a bile leak or retained stone, something that is related to what they presented with. I think it's very important in those instances to consider imaging depending on the presentation. Now, if it's a late presentation, then I think it's important to look at what else could this be? Could this be functional dyspepsia, could this be another functional disorder? So, I think looking for competing etiologies in the later phase, I think becomes important.

Molly: Taking us back in time, you've decided not to get her cholecystectomy. One night, she wakes up in the middle of the night, she's in terrible pain, and she goes to the hospital. How do you evaluate her there in the hospital?

Rahul: Yeah, so, I think physical examination becomes extremely important. Getting a good clinical history assuming that if she had the same clinical history that the pain started, it's similar kind of pain. In the past, it had subsided, but this time it just kept on going that really she had to go to the emergency department. This is an instance where physical examination, the right upper quadrant examination, and the Murphy's sign becomes very, very helpful. I would do a deep palpation in the subcostal region in the midclavicular line. With deep inspiration, they usually have a hold with severe pain. I think it'd be helpful to get another ultrasound. Most often that happens if the patient hasn't already gotten a CT walking into.

[laughter]

Paul: Into the ER, right?

Nora: Yeah. [laughs]

Rahul: But you know, why I say an ultrasound is the sonographic Murphy's sign has been shown to be extremely predictive of cholecystitis. Similar to our clinical exam, so, those would be the tests I would get. I would get a hepatic function panel just to see where her liver tests are, where her bilirubin is, and then a general exam in terms of how sick she is, if she's really having any systemic inflammatory type of syndrome.

Nora: And who are patients in whom you would move to a HIDA scan?

Rahul: Yeah, so, HIDA basically has two main functions. In this case, Eve has a very classic presentation of biliary colic or cholecystitis most likely. HIDA scan can be helpful for evaluating the patency of the cystic duct. That's what it's there for. In patients with cholecystitis, we assume that the cystic duct is occluded from a stone. There is no excretion of the dye into the duodenum. Where it can be incredibly helpful is patients with a calculus cholecystitis, sick patients in the ICU, things like that.

The other instance where HIDA scan can be quite helpful is bile leaks. If patients having severe abdominal pain after cholecystectomy and really, you want to look at a bile leak in the hospital, those would be the two instances. In Eve's case, I don't think she would need a HIDA scan.

Nora: What about an MRCP?

Rahul: Yeah, so, MRCP can be helpful when there's a suspicion for a common bile duct stone. It's actually very well listed out. If I would encourage your listeners to look at the American Society of Gastrointestinal Endoscopy, the ASGE has a guideline document where it breaks down into the probability of having a common bile duct stone. So, low, intermediate, and high. That's where the imaging test decisions can become very helpful. If the patient has a normal-- bilirubin presents with a classic cholecystitis kind of picture, you don't need any other tests. You'd go straight to a laparoscopic cholecystectomy depending on the surgical expertise, you can get an intraoperative cholangiogram

If assuming her liver tests are normal or close to normal, we'd go down that pathway. Where MRI and MRCP can be quite helpful is patients with intermediate probability. If a patient let's say, presents with cholecystitis, but has a bilirubin in the 2 to 4 range, and in those instances, it's not really clear if there's a stone in the common bile duct or not, or if the elevation in the bilirubin is just from the cholecystitis, that's where an MRCP can be quite helpful. The complementary test to that depending on what you need is an endoscopic ultrasound. But typically, the recommendation is to go do an MRI with MRCP in those patients with intermediate probability. If the patient has a high bilirubin, above 4, you don't really need any other tests. Those are the patients that we would take directly to an ERCP because there's a very high probability of a common bile duct stone.

Paul: Okay, [laughs] we've made Eve had worsened grimmer outcomes as we progress. Let's go back in time again. She had the elective cholecystectomy, and feels like a million bucks, and we can just be happy about Eve is doing. Do we want to-- [crosstalk]

Nora: Actually, Paul, can we go back to [crosstalk]

Paul: Oh, no, you're going to-- She was hit by a car on the way to the hospital.

Nora: Yeah, back in the hospital. If she's there in the hospital and it's an uncomplicated cholecystitis, does she need to go to surgery right away during that admission? What should be the plan for her there?

Rahul: Yeah, the recommendation is the same cholecystectomy in the same admission really. You don't want to delay cholecystectomy. In fact, the data is very strong for an early cholecystectomy. So, early in

most cases defined as within 72 hours, but in practice really the same the next day or the day after kind of timeframe.

Paul: So, are there any gallbladder cool off, making [crosstalk]

Rahul: Yeah. I think the cool off, you hear that term a lot from surgeons in many instances for. But for cholecystectomy, as long as an uncomplicated cholecystitis, the data is very clear. Patients need to get their gallbladder out. That's the only thing that'll fix them.

Paul: All right.

Paul: Molly, do you have anything else you do?

Molly: No. Thank you, sir.

[laughter]

Molly: I'm [crosstalk]

Paul: Did you find something horrible intraoperatively here?

Molly: No. [crosstalk]

Nora: [crosstalk] antibiotics just while we're here.

Paul: What's that?

Nora: Antibiotics.

Paul: Oh, great. sure. [crosstalk]

Nora: How long should we be keeping patients on antibiotics? Let's say, she does get her gallbladder out and what antibiotics?

Rahul: Yeah, so, actually, if it's an uncomplicated cholecystitis and patient goes to a cholecystectomy, they may not even need antibiotics. Only if they have any systemic inflammatory response type symptoms, bacteremia, duration of antibiotics is so variable. Probably, seven to 10 days, I think less is more as long as there is uncomplicated cholecystitis. The duration--

[laughter]

Paul: [unintelligible [00:33:14] three days eventually, but we're just not quite there here yet.

Rahul: Yeah.

Nora: I've heard. Yeah, people moving the ball forward in that direction.

Molly: Less is more.

Nora: Less is more.

Rahul: Less is more.

Molly: Exactly.

Rahul: I did say that.

Molly and Nora: Yeah.

[laughter]

Molly: Where were you trying to take that, Paul?

Nora: [laughs]

Paul: Oh, nowhere. Yeah, I was just—

Molly: But when you took her back in time, where would you go?

Paul: I'm just going to going to make her better. That was all. We can also give her a cholecystectomy here.

Nora: Okay.

Paul: So, we had some closure and a happy ending for you. I'm a romantic at heart. Molly, you know this.

Molly: Wonderful.

Paul: But whatever happened to Eve, it worked out great. She's doing fine. She won the lottery afterwards. I guess that we had a couple-- and we may have hit on most of the points here. And so, the rapid question is the end. I did want to ask the question just because I've seen this in outpatient setting is where someone has abdominal pain, you do the ultrasound, and then they come back with a gallbladder polyp and no stones, no other signs of inflammation, or adenomyomatosis, which is one of the things I have to look up every single time to see how panicked I should be about that. Could you talk us through it--? Obviously, I know this is a broad topic, but sort of your general approach for this particular finding.

Rahul: Yeah, gallbladder polyps can be quite common. I think adenomyomatosis, just like you, I have to look it up every time. It's an inflammatory condition of the gallbladder, usually associated with stones. I think the take home message from the 30,000-foot view of gallbladder polyps is looking at the age of the patient, any other associated health conditions, and the size of the polyps. For your listeners, patients over the age of 50 with a gallbladder polyp, typically a polyp greater than six millimeters in that age group, probably the recommendation is to get a cholecystectomy.

Any gallbladder polyp about a centimeter or a broad-based gallbladder polyp should also come out. Because the idea there is that we want to decrease the risk for gallbladder cancer. There're some special situations if you happen to have patients with primary sclerosing cholangitis, who have gallbladder polyps that are very high risk for gallbladder cancer, those need to be resected. Special populations, native Americans, Pima Indians, they have screening programs for gallbladder stones and polyps. So, in those instances, they have a very high risk for gallbladder cancer.

Paul: Right. That's usually helpful. Thank you.

Nora: Are you screening patients from there, if you say, you don't actually do the gallbladder removal?

Rahul: They do actually have screening programs in certain select populations and native American populations they do. Just to go back to the gallbladder polyps. An incidental small gallbladder polyp less than five millimeters in an otherwise healthy patient is no cause for concern. It really doesn't need any further follow up. Usually, 6 to 10-millimeter polyps, they say, get a repeat ultrasound in six months up to a year and if it stays stable, then they don't need any further follow up.

Molly: Oh, they don't need the early follow up. I have quite a few patients on the yearly-- [crosstalk

Rahul: Yeah, so, in the 6 to 10-millimeter range, if it stays stable, they do say yearly follow up, but it's when to stop it's not really been described.

Nora: Yeah.

Paul: Because I'm in the same boat and all the other patients, they have these unfortunately seem to be in their 80s and 90s, I'm like, "How am I doing this for?" Cross your fingers and grit your teeth every time you order the study that nothing else is going to show up. So, it's challenging.

Rahul: Right.

Nora: And gallbladder cancer is rare outside of primary sclerosing cholangitis?

Rahul: Even in primary sclerosing-- gallbladder cancer is rare, but it's a really tough cancer. Outcomes are not that great. So, it's extremely rare, though.

Nora: There's no endoscopic polypectomy.

[laughter]

Rahul: Not for this podcast.

[laughter]

Rahul: I don't want to confuse your listeners.

Paul: Right.

Molly: [laughs]

Nora: Excellent. And then the adenomyomatosis, nothing to do about that.

Rahul: No, adenomyomatosis in the past it used to be thought of as a premalignant condition, because it was usually associated with stones. But now, it's considered an inflammatory condition. Just the finding of adenomyomatosis doesn't necessarily warrant cholecystectomy at this point.

Molly: Perfect. Well, what are your main take home points for our listeners?

Rahul: I think the main take home points are that gallstones are common. The patients with asymptomatic gallstones don't need a cholecystectomy. Biliary colic is very typical. Getting a good history and really being sure about the history before sending the patient to a cholecystectomy, I think is a very important point, because patients can have consequences from post-cholecystectomy syndrome to post-cholecystectomy diarrhea, and their pain may not get better if you don't select the patients appropriately. And then use imaging wisely. I think ultrasound, the lowly ultrasound is quite valuable, especially in this scenario.

Paul: Tremendous. Anything would you like to plug it all?

Rahul: There're a ton of guidelines. I think the one thing I would plug is, especially for people who do hospital medicine, or residents, fellows. I think the one guideline that I found incredibly helpful that I use in my daily practice is that ASG guideline on the probability. If you're ever stuck about who to call, what to do in those scenarios, that's a really, clinically valuable guideline. So, good luck.

Molly: Thanks.

Paul: Very god.

Molly: Thank you.

Paul: Thanks so much, Rahul.

Rahul: Oh, thank you. This was fun.

[music]

Paul: This has been another episode of the Curbsiders bring you a little knowledge food for your brain hole.

Molly: Yummy.

Paul: [laughs] Oh, [crosstalk].

Nora: Different every time.

Paul: I like that one.

Nora: Yeah.

Paul: Get your show notes at the *curbsiders.com*. It was haunting and set up our mailing list to get our weekly show notes in your inbox, plus twice each month, you'll get our new Curbsiders Digest recapping the latest practice changing articles, guidelines, and news in Internal Medicine.

Molly: We are committed to providing you with high value practice changing knowledge. To do that, we need your feedback. So, please subscribe, rate, and review the show on Apple Podcasts or contact us at *thecurbsiders@gmail.com*. A reminder that many of our episodes are available for free CME credit for all healthcare professionals through VCU Health at *curbsiders.vcuhealth.org*.

Nora: A special thanks to our writer, producer, and cohost for this episode Dr. Molly Heublein and to our whole team, Beth 'Garbs' Garbitelli is still our executive producer with production and editing support from the team at Pod Paste, and Elizabeth Proto runs our social media, Tima Karginov maintains our website, and Stuart Brigham composed our theme music. Until next time, I've been Dr. Nora [unintelligible [00:40:00] Toronto.

Molly: And I'm Dr. Molly Heublein.

Paul: And as always, I remain Dr. Paul Nelson Williams. Thank you and goodbye.

[Transcript provided by SpeechDocs Podcast Transcription]