**Episode 70: Journal Club – July 2020**

Dr. Joe Chappelle: Hello everyone and welcome back. I’m Joe Chappelle and you’re listening to Episode 70 of the OB/GYN Podcast. It does feel good to be back and I hope you’re all enjoying the new content. Today, we’re going to do a journal club and to discuss that article I have Dr. Heather Link and Dr. Jerry Ballas with me. Welcome to both of you.

Dr. Jerry Ballas: Howdy.

Dr. Heather Link: Thank you.

Dr. Joe Chappelle: It’s very nice to have this group back together and I’m excited to talk about this article today, and the article is *Intra-abdominal Irrigation at Cesarean Delivery*. It was published in the Green Journal June of 2012, so it was actually quite a while ago, but it caught my eye. And it is out of the Virginia Commonwealth University in Richmond, and the senior author is David Chelmow, who is actually one of the founders of SASGOG, which is probably how I came across it.

What the paper’s really looking at is what is the effect of intra-abdominal irrigation at caesarean delivery on both GI disturbance and infectious morbidity. It’s an interesting question. I like questions like this because it tackles things that we do every day. I also like this paper because it highlights a lot of the issues with doing this kind of clinical research, which is another reason why I wanted to highlight it.

But before we get into that, I kind of want to talk about the premise of this. C-section is one of those things that we do hundreds of in our residency. If you do a fellowship, you probably do hundreds more, and then once you’re in practice, I think my first year out, I did over 300 c-sections, which was a little of a unique circumstance but I did a lot. And you just do it, and you probably do it the way you were taught, and every once in a while you might come across a new technique or something and you might incorporate that, but I would guess that the majority of people are still doing a c-section the way they did 10 years ago. And so, I kind of wanted to get an idea from the two of you what the technique is at the places you’ve worked. Jerry, you’ve worked at three places, three or four places, and Heather you’ve worked at a couple at least, probably three I suppose. So, when it comes to irrigating, when it comes to exteriorizing the uterus, suture technique, all that stuff, I’ll start with Heather, what have you seen? What is the standard at any of the locations or have you seen a potpourri of different techniques?

Dr. Heather Link: I would say a little bit of a potpourri. Where I was a resident in Atlanta, there was much more of a push towards a single layer, unlocked closures, and there were, where I was a fellow, a lot of the choices were surgeon-dependent, which the authors touched upon in the paper. And sometimes you would get an attending who would explain their rationale to you and sometimes it was just what you would do. But it was a little bit of a potpourri whenever you’re working with maybe two dozen different people over the course of a few years.

Dr. Joe Chappelle: And what do you do now?

Dr. Heather Link: I typically always try to leave the uterus in place if possible. I think it’s both less discomforting for patients and it is good practice for learners to be able to close a uterus while it’s inside. I do tend to stick to my single layer unlocked closure. And I like to sweep the blood clots out of the gutters with a wet lap, but I don’t use 500 to 1,000 mL of warm irrigation. But don’t have a really good reason for not.

Dr. Joe Chappelle: And I think that’s… I touched on this in fact. One of the things I do in my c-sections when I’m teaching residents is I will explain to them how I came to every single decision about how I do a c-section and some of it is based on just my experience and it’s based on evidence, and a lot of it is just based on what I like. But I try to be clear about what falls into each category so that the residents know what they should take away and what they can decide to do something different with. And this paper is trying to give us a little bit of something. Jerry, how about you?

Dr. Jerry Ballas: Coming out of residency I definitely incorporated, and I actually gave this speech over a c-section yesterday to the intern, basically explaining how I took the foundation of all my maneuvers in c-section from almost individual attendings from residency. And I can almost recall almost every major maneuver I do from tagging the uterus to how I check sub-Qs for bleeders to specific attendings that taught me over the time how to do it. And so, that’s when I left residency with that and then… I have my five-year-old knocking on the door.

Dr. Joe Chappelle: No problem.

Dr. Jerry Ballas: And then, when I went to Baylor actually, was probably the biggest revolution to what I did because we introduced the Joel-Cohen as the standard method for our primary c-sections. And part of the drive was to reduce infection rates by keeping the operative time to the minimum. And so, the goal was 45 minutes skin to skin at most, and with primaries we did Joel-Cohen. So, blunt dissection all the way down to the uterus, no bladder flap. Basically, it’s like a mini stat in a nice organized fashion. And then closure with a double layer imbricated. We do exteriorize most of the time. I actually, still to this day, I don’t irrigate but I take a sloppy wet, put it in the posterior cul-de-sac, I’ll take a Yankauer and suction on to the sloppy wet to get any excess fluid or blood from behind the uterus, and then the lap itself remove any stray clots that are behind. So, I don’t actually irrigate but I semi-irrigate by placing the lap there and suctioning on top. Yeah, so that’s basically for primaries. And even for repeats, if it’s reasonable and there aren’t actually extensive adhesive diseases, I try my best to keep it blunt and then I’ll make bladder flaps if need be and repeat just to get a plain…

But I remember all the way back, I mean, we used to have one attending that repaired the bladder flap, close the peritoneum, reapproximated the muscles. I mean, looking back now I wonder how my sections stayed under an hour and a half sometimes. And so, I’ve learned to pare it down to the essentials now.

Dr. Joe Chappelle: That’s good variety here. I tend to do almost everything blunt. I don’t do a bladder flap. On primaries I will do a double layer but it’s always unlocking, there’s no lock stitches. We can have a conversation about that at another time. And I don’t clean anything, I don’t put laps anywhere, I leave everything inside. I mean, if there’s a big clot there I’ll pull it out, but I don’t go fishing for them. So, I’m a little bit of the opposite for the two of you there. But certainly, we’re both not at the extreme of doing a liter of warm saline into the belly.

But it’s a valid question. And I do think… It’s interesting, I swear there was a paper I read a number of years ago that said that in women with chorio, irrigating decreased the rate of endomyometritis, but for the life of me I cannot find that paper. I looked all day for it, and I couldn’t find it, so maybe it doesn’t exist and I made it up. It’s possible I might be confabulating. So, on people with chorio I tend to irrigate based on this recollection of this paper that does not exist apparently. And the Cochrane review does not reference the paper either, so I don't know, I think I made it up.

Dr. Jerry Ballas: Yeah. I won’t irrigate, but in case of chorio or an arrested labor section I will power wash the sub-Q incision, after we close fascia or about to close, I will use 1,000 milliliters almost of saline just to clean the incision, and I power wash with my hand, I get water in all of the drapes and gutters because I want to clean that incision out so much. Can I point to a randomized controlled double-blind placebo trial that shows efficacy? No, but logically I always say we just pulled every content from the vagina and uterus and infection through the abdomen, so my mom always taught me to really clean up after things like that.

Dr. Joe Chappelle: We have to talk what your mom was doing when she taught you that. But I do think that goes to the point of their question, which was this idea that the solution to pollution is dilution. That if you have all this potentially infectious material there, and clot is a great culture medium we know that, that if we remove it all and irrigate, we should decrease the rate of endomyometritis. I think that’s where this comes from. Now, I guess they’re also talking perhaps a little bit about maybe the blood and amniotic fluid could also cause some GI disturbance as well because it’s a peritoneal irritant, but then again so is irrigation, so it’s kind of hard to say.

So then to just start critiquing the paper then, I’m going to start with the objective as listed in their abstract. I usually go introduction, forward, and then go back to the abstract. But their objective in the introduction really hit me and so I wanted to comment on it. The objective was to determine whether avoiding intra-abdominal irrigation at caesarean delivery will decrease rates of intraoperative and postoperative gastrointestinal disturbance without increasing postoperative morbidity. I thought that was a very interesting way of phrasing an objective, because usually you say, I want to look at what doing my intervention, how that affects this variable, as opposed to saying, is it going to decrease it. And so, I thought that was interesting. I don't know if any of you two have a thought about that.

Dr. Jerry Ballas: I mean, it was a very convoluted way of saying whether irrigation causes nausea intra-operatively. When you first sent the article, I thought it was going to straight to something like you talked about, dilution, pollution, infection, et cetera. And then I was like, oh, that’s the problem they’re looking at. It was interesting.

Dr. Joe Chappelle: Right. I guess, I think you nailed it. Because the paper is going to focus on GI disturbance, but you can tell from their objective that they really were concerned with postoperative morbidity. Because they’re saying, if we don’t irrigate, will we increase postoperative morbidity. That seemed to be the question they were asking. But yet they didn’t power the study around postoperative morbidity, they powered it around GI disturbance.

Dr. Jerry Ballas: Almost as if they assumed morbidity happens if you don’t do it?

Dr. Joe Chappelle: It was odd. Because I think… I don't know. Heather, let me ask you, then. Why do you think most people irrigate?

Dr. Heather Link: That was my most interested question out of the beginning of the paper, because I felt like even in the intra-section, what I wanted from them was more on where irrigation comes from and why do people do it and why is it important. Because I have been taught somewhat different things in different environments. I had spent some time in a low resource setting doing c-sections where I was told not to irrigate because you could wash away the blood, and these women, that was what they needed to reabsorb, so don’t risk taking–

Dr. Joe Chappelle: They need that iron.

Dr. Heather Link: Exactly. But infection was a problem and we didn’t necessarily… It was never brought to the attention or even the thinking that maybe irrigation would be good for infection, and so when I felt like learning as a resident and a medical student I was taught that this stuff is just GI irritating so get it out of there if you can. So, I was really hopeful… The intro part left me wanting more about why do people do this and how did it start and odd that you didn’t comment on that.

Dr. Joe Chappelle: In the first line of their introduction, they basically spend the entire thing talking about postoperative morbidity due to infection and so, it’s obvious to me that their starting point was infectious morbidity. And I think, I don’t want to… What’s the word I’m looking for? I don’t want to assume how they were thinking, but it seems like they said, we want to study this but there’s no way we’ll get enough patients to power it for morbidity, so we’ll look at GI disturbance instead. That’s what it seems like to me.

I have thought about this subject before, and I thought about exteriorizing the uterus, and there are studies on that as well. But none of them were very good. And the reason that is, is because this is hard to do, especially if you’re looking at infectious morbidity, the outcome, not that it’s not rare, but it’s low enough where it’s hard to collect enough people to get… It’s hard to standardize a surgical procedure. It’s a very difficult study to do, and so I’m impressed that they actually even tried to do it regardless of how well I think it’s going to turn out, because I have never had the testicular fortitude to attempt this, although I’ve wanted to.

Then we’ll move into, I suppose… Again, I agree, the introduction is a total of two paragraphs long, and so I agree, maybe there could have been a little more flesh there. But we’ll move into the materials and methods. It’s a randomized controlled trial. They did consent at admission, so they consented everybody, or they approached everyone who was admitted, whether it be for a scheduled c-section or for labor. Their inclusion criteria was greater than 18, English speaking, and then only women of the laboring group who got a c-section were actually randomized and the rest were not. I think that seems like a pretty fair way of going about it. Although they did say that the sections who came in were much more likely to say yes than the women who got admitted in labor, and I think that anyone who’s been around laboring patients can understand why that might be. If you’re already in pain… I mean, the only way you get them to all say yes is to say you can only get an epidural after you say yes, and then you would enroll more people. Otherwise, they’re going to tell you to get out of the room and let the anesthesiologist come in. But I didn’t have any problems with their inclusion criteria. Either of you?

Dr. Jerry Ballas: I was just wondering, would it have weakened their study to simply focus on all… just to standardize things a little more, all scheduled sections, because then you do introduce a lot of variability when you include arrested labors and coming off out of labor or ruptured patients. You introduce a lot of those factors that could potentially lead to other outcomes or other complications postpartum that have nothing to do with your intervention. So, would just doing your scheduled cases have been worse off in terms of standardization? But in the end, the randomization did its job and seemed to not be affected by whether it was a laboring or scheduled.

Dr. Heather Link: I had a similar thought about the standardization of scheduled sections that mostly came about later, and I’m sure we’ll get to the biases of the anesthesia provider and whether perhaps you would have had a similar team depending of the structure of your L&D if you’re continually doing c-sections from the same time slot.

Dr. Joe Chappelle: That’s a very good point. And I think I agree with you Jerry, that labor adds a whole other level of complexity to this. The women could be dehydrated, they could also be overhydrated or edematous from two or three days of being labor and it does add a lot more variables that could affect especially GI mobility, which is one of their primary outcome. Again, I’m sensing some confusion in the design here, because if you’re looking at infectious morbidity, you want the laboring patients, and if you’re just looking at GI disturbance, I agree with you, you probably just want the repeat sections, because that’s a more controlled environment. And so, I think that maybe there was some confusion about what they were actually trying to get after when they designed the study. And I’m not faulting them on that, I’ve been there, where I have designed a study and gone back and then be like, ugh, you know what I should have designed that differently based on what I actually wanted in the end. But hindsight is 20/20.

As far as the randomization, they did sequentially numbered envelopes. Very similar, we did a study here, I think it was published somewhere, about 10, 15 years ago on Seprafilm adhesion barrier, and we did the same sort of thing where there was sequentially numbered–

Dr. Jerry Ballas: I remember the Seprafilm study. Sorry.

Dr. Joe Chappelle: Yeah.

Dr. Jerry Ballas: Hard getting back to the day when you put that in as a resident, that was fantastic.

Dr. Joe Chappelle: Yeah. Very sticky. Very hard to put in correctly.

Dr. Jerry Ballas: Makes you seem very amateur-ish very quickly.

Dr. Joe Chappelle: Correct. And also, didn’t work, so spoiler alert if you haven’t read the paper.

And then, I like this part, this little detail. And this, I’m laughing a little bit, but I do think it’s important that this stuff goes in the paper. But the RN showed the surgeon what the card said, and nothing was said out loud so that no one other than the people operating and the nurse knew what the card said and what was going to be done. And I thought that, if you’re going to try to reproduce the study, you do need those kind of details to say, okay that’s how they did it. So, that was nice.

Dr. Jerry Ballas: Did they also forbid the anesthesiologist from looking over and peeking? Was it all done silently? Was it like a card was shown and then the scrub tech silently got a liter of normal saline and…? How do you–

Dr. Joe Chappelle: Well, it sounds like they had a liter of normal saline in every case that was randomized, and they just used it on some and didn’t on others.

Dr. Jerry Ballas: Okay.

Dr. Joe Chappelle: But yes, the anesthesiologist would have had not to look.

Dr. Heather Link: And maybe not to listen.

Dr. Jerry Ballas: Yeah, exactly.

Dr. Joe Chappelle: Well, sure, right?

Dr. Jerry Ballas: Did they gently pour it in?

Dr. Joe Chappelle: Well, also, when you hear a liter being sucked out of somebody’s abdomen, it has a certain kind of noise.

Dr. Heather Link: They probably needed that info for EBL as well.

Dr. Joe Chappelle: Well, they probably weren’t doing QBL back in 2012, so who knows.

Dr. Jerry Ballas: Or you have to put in the op note too, I’m assuming.

Dr. Joe Chappelle: It was probably a straight EBL. Yeah, looked like 900.

Dr. Jerry Ballas: 999.

Dr. Joe Chappelle: Exactly. In both groups, blood and debris was removed from the paracolic gutters, the posterior cul-de-sac and the bladder flap, which is already a pretty decent amount of manipulation of the bowel, just to make a point there. And then in the study group, they had 500 to a liter, and this getting into our point of how it’s hard to standardize operative procedures, but they just told the surgeon, use anywhere between 500 and a liter. I mean, whatever, as long as you put some of it. And the only instruction we gave them was that it had to go inside the belly and then come back out again. That was the only instruction we gave them. And so, you can imagine there were very different techniques for how to use that 500 to a liter of warm saline.

Dr. Jerry Ballas: Right.

Dr. Joe Chappelle: Again, I’m not faulting the study necessarily, because this is a very difficult thing to do. I mean, I was talking to my wife earlier, who’s also an Ob/Gyn, and I was talking about, could I get people to do the study here? And we were like, oh, maybe 3 or 4 people out of the 20 people who work here would agree to completely change their c-section for a study and everyone else would tell you to go to hell. So, I can understand how they just kind of left it.

Dr. Jerry Ballas: Or they would like, yeah, yeah, yeah, no problem. And then after the section be like, oh, crap we forgot to do that part.

Dr. Joe Chappelle: Correct. Also that. I mean, Seprafilm, remember that? How many times did someone get randomized Seprafilm who didn’t get Seprafilm? That happened not infrequently, especially in the beginning.

Alright, so then any problems with the way the actually… Oh, let me go back. There were no prophylactic antiemetics given to the patients. The GI disturbance was considered to be nausea with or without emesis intra-op, that was their primary outcome. And decided by patient rapport or by administration of antiemetics, and I think Heather this is what you were talking about earlier, that they even said in their paper, we’ll get to it later, that different anesthesiologists probably have different cutoffs for when to give antiemetics and that could have… And they were saying that since it was random, we’re hoping that that randomness equaled out and wasn’t the same surgeon on all of the controls, the same anesthesiologists in all of the controls. But certainly, there’s an issue there. Any comments on that primary outcome?

Dr. Heather Link: Whenever a primary outcome is essentially a composite outcome, I do tend to like to see, if possible, how that got broken down somewhere in the paper. It would have been nice if they had. And we’ll touch on this with the anesthesiologist, but my question was what was really your driver of this outcome? Was it patient emesis or was it patient receiving this medication? And could that have changed over time or could something have been different? Any primary outcome that’s essentially more than one thing, I think it would be nice if the authors could break it down for those of us who are consuming it.

Dr. Joe Chappelle: Yeah. I’m going to guess that it’s mostly the use of antiemetics but go ahead Jerry.

Dr. Jerry Ballas: And was it all patient originating in terms of the complaint of emesis et cetera or was there any prompting or scoring basically. I would have liked to have seen some sort of standardized time point and questions asked from the anesthesiologist at different points to score or scale the nausea or discomfort and possibly standardize in that way and then have a trigger for giving antiemetics and have that actually scored out as well, and you can actually come out with a more numeric, or something more comparable, rather than composite or a yes/no it happened type of outcome.

Dr. Joe Chappelle: Absolutely. They do touch on that later in the paper, that they think that that was an issue with their study. And then, their secondary outcome – and I’m going to harp on this I think for a minute – is… They have three secondary outcomes. The first was endomyometritis, and you had to have two of the following. Abnormally tender uterus, which you can’t get any more subjective than that, any temp greater than 38 and maternal tachycardia greater than 100. And apparently, all the people, if they fit that criteria, were started on antibiotics for postpartum endomyometritis. I just think, we have a number of women who have a temp of greater than 38 in the immediate day postop for reasons that are not endomyometritis and then it goes away. A lot of them will have tachycardia, especially in that first day. And so, it just seemed like it was a very, very inclusive set of criteria for endomyometritis. Again, this might be an institutional thing and a cultural thing where they work, so I wanted to ask you guys again, does this sound something like you guys do where you work or have worked? Because certainly not at Stony Brook, we don’t use that criteria.

Dr. Jerry Ballas: I mean, having two out of those is pretty close to what we use. I would argue, and I think some of my colleagues would also argue, we have a high rate of postpartum endometritis, chorioamnionitis, I think the whole spectrum probably diagnosed much more often than probably should, and I think part of the rationale is the intervention in theory is fairly low risk, not to shock any of the antibiotics stewards out there, I don’t want to get any hate mail. Don’t yell at me.

Dr. Joe Chappelle: What about the microbiome, Jerry?

Dr. Jerry Ballas: We’ve already killed that with the section.

Dr. Joe Chappelle: Yeah.

Dr. Jerry Ballas: No, I think it doesn’t seem unreasonable. And honestly, if they wanted it to be captured, like you said, if you wanted to power to a pure endomyometritis number you’d have to have a lot, a lot of people if you had stringent criteria. So, I think this is another way of trying to maybe get enough people to see a trend or even some significance.

Dr. Joe Chappelle: I mean, I’m going to guess that this is actually just what their hospital policy is, because they would have a hard time implementing that in a study based thing, so it just must be what they do there. And it sounds like you’re not too far off, so maybe it’s just different cultures. How about you, Heather?

Dr. Heather Link: That was my assumption as well, that it was hospital policy. I am less personally familiar with the tachycardia greater than 100 and I was intrigued by how strict that was, because I think it’s potentially… It could also be a little subjective, if you’re like, well, maybe she got some Cytotec or maybe she’s borderline anemic, but I assumed that that was part of their system.

Dr. Joe Chappelle: She was in pain…

Dr. Heather Link: Yeah. For how they did things at their hospital.

Dr. Joe Chappelle: Yeah. Later we’ll get into what their rate of endomyometritis was, and it was, spoiler alert, high. And I’m not surprised by that.

Another secondary objective or outcome was postoperative GI disturbance, which was nausea, emesis or use of antiemetics. And again, they don’t really go into how that was… especially the nausea. I mean, emesis is pretty objective, and antiemetics are pretty objective, but not the nausea necessarily. And then, the third group was time to general diet, which I’m guessing is a regular diet, and then return of bowel function, which was defined as flatus or tolerance of diet. And again, this is 2012, so it’s almost ten years ago. At least at Stony Brook, our thoughts on diet advancement have changed considerably in that time, and so I don’t want to judge this paper based on how we do things now, but there is no advancement anymore, you get a regular diet when you’re done with your c-section, and whenever you feel like eating that you can, and we’ve had no problems with that. I don't know what you guys do in your places.

Dr. Jerry Ballas: No, there’s still a traditional time period before they’re advanced, so there’s still that advancement culture. But I definitely remember the studies at Stony Brook that really were aggressive. And I’ve quoted that a bunch of times out here to get people to stop starving folks post c-section, but typically it’s, if it was done late in the afternoon, evening, typically they’ll advance in the morning. If it’s done in the morning, they’ll talk about evening time advancement. So, it’s not draconian, where we’re waiting 24 hours or something crazy like that. But I’d say there’s definitely a typical 8 to 12-hour window before advancement is officially put in for a diet order.

Dr. Heather Link: I think similar where I was training and moving towards the more enhanced recovery now.

Dr. Jerry Ballas: Exactly. With ERAS coming around, that’s part of the studies that are quoted for the enhanced recovery is the Stony Brook papers.

Dr. Joe Chappelle: Yeah. I mean, what we found is that women just self-regulate. And also, the nurses are there, so if the patient orders a double bacon cheeseburger two hours after a section, the nurses are like, well, you know…

Dr. Jerry Ballas: There’ll be at least one nurse that, like, “Mm… honey, you sure about that?”

Dr. Joe Chappelle: Exactly. Like, “I’ve been doing this a few years and I’m going to tell you, you’re not going to like that burger when it comes back up.”

Dr. Jerry Ballas: “And neither am I.”

Dr. Joe Chappelle: Exactly. But we find that most women just self-regulate. They don’t feel great anyway, they’re not going to go for a heavy meal, they’re going to go with something light to begin with anyway.

Alright. And then, let’s go into the power analysis. They powered for a 20% increase in GI disturbance with the irrigation. Now, here’s one of the problems with powering a randomized controlled trial, is that you really need to know what your prevalence is before you can say 20% and then… And they don’t give us what they used. And you can make it up. I mean, you can say, “We think that based on our experience, the prevalence is X.” Or “Based on preliminary data,” I don’t care. “Based on a pilot study.” Fine. It doesn’t have to be quoted in the general literature, especially when you’re doing something that doesn’t have that done. But I like to see what they think the prevalence is going to be. In fact, one of our MFMs, he presented a paper he did, I think it was at Einstein, looking at, I think it was postop wound complications from infectious morbidity, actually. And they thought that their prevalence was going to be relatively high based on their pilot data, and it ended up being 50% lower than they thought it was going to be, and so their study was underpowered even though they got all the patients they thought they needed. And that happens sometimes, but you have to know what your prevalence is before you can calculate 20% of that and then figure it out. Because 20% higher than 7% is different than 20% higher than 70%.

Dr. Jerry Ballas: Yeah. The sentence kind of threw me off, because they’re just like, “Because variable rates exist, we chose 20%.” Usually, folks will say at least, “Based on this Cochrane,” or “Based on this paper,” or at least something, not just “Everything’s all over the place so 20% sounds good.” I mean, it sounds like what they may have done is look at the amount of c-sections they think they could get and, I’m assuming this is a resident project or fellow, it seems like a…

Dr. Joe Chappelle: It is, yeah.

Dr. Jerry Ballas: Yeah, they’re like, what do you think could happen in the next two years in terms of number of c-sections we could actually enroll in here reasonably and what percentage we can go for that fits our power calculation, which, let’s be honest with ourselves, a lot of times that’s how resident projects and fellow projects are framed in a backwards way, because you have to basically work with what you got in the time that you have. So, I think maybe part of it came from there. Maybe that’s just me being cynical, which is shocking I know.

Dr. Joe Chappelle: Heather, you had a comment.

Dr. Heather Link: Oh, I was just… Along the lines of how they got to 20%, I was just very surprised to not even see a citation next to that. There wasn’t even a… Not the 20% but the variable rates, I expected to see a citation suggesting these three papers all reported these different rates, and so that’s how we got to 20%. So, it did make it seem a little bit like there’s either so much data it’s impossible for us to pick a couple to cite that are all over the place, versus maybe this part was done quickly.

Dr. Joe Chappelle: Yeah. It’s interesting. I read this paper, I have a few more issues later on in the actual… Again, not necessarily the study but with the way it’s written, and as a reviewer and also as an associate editor, I have seen… I just did a review the other day in a paper and I gave it a two- or three-page review, which is my standard. And I submitted it, and I always go back and look at the other people’s reviews as well, because sometimes I’ll miss something and I’ll say, “Ah, man I didn’t see that,” or “I should have written about that.” But the other review I saw was “Great paper, should be published.”

Dr. Heather Link: Ooh. I’ve got some stuff for this reviewer.

Dr. Joe Chappelle: And as an associate editor, I have seen reviews that are definitely… I see a lot of reviews that are like that and I usually don’t send them any more reviews after that. But there’s definitely a large variety in… Actually, I just got a paper back from review, and one reviewer thought it was good, another reviewer gave us 16 bulleted items that they wanted addressed. So, you get a lot of variety in reviewing and depending on who you get it can be stringent or not, and so I think a more stringent reviewer probably would have asked for some clarification on some of these things. That was my point.

Anyway, they found they needed 184 in each group. They actually did stop the data halfway through to do a data analysis because of RRD, Jerry. They actually say that in the paper, by the way.

Dr. Jerry Ballas: No. I could envision the happy dance that they did when they got a p value that was significant and hadn’t reached their numbers and they were like, “I hit the jackpot. Where’s RRD? Let’s present.”

Dr. Joe Chappelle: Exactly. I mean, anyone who’s been involved in resident research, either personally or as a mentor, has definitely been through something like this. Again, usually most resident research is not randomized controlled trials, but it can be retrospective and you’re like, “I did 500 charts. Can we just analyze it now, because I don't know if I have enough time to do another 200 before I get to RRD.” Or “RRD’s in three weeks, we should probably analyze the data.” We have all been there.

Dr. Jerry Ballas: Flashbacks. Flashbacks.

Dr. Joe Chappelle: Exactly. Alright, so I’m going to go into the results now. Any other questions about their stats or anything? Any comments before I move on?

Dr. Heather Link: I appreciated that they included that it was a planned stoppage analysis at the beginning.

Dr. Joe Chappelle: Agreed. So, then going into the results, they start with the demographics. There are no differences between the two groups. I was a little confused about their giving relative risk and confidence intervals in that first table. I’m not really sure what that means. Maybe one of you can enlighten me as to why that’s there, because I couldn’t figure it out.

Dr. Jerry Ballas: You mean for the demographics?

Dr. Joe Chappelle: Yeah. The relative risk of being younger in the non-irrigation group? I didn’t really understand what information that added to the paper.

Dr. Jerry Ballas: I think it’s just one more way to emphasize that there was no difference between groups, even though you’re right, when you say it out loud it, linguistically it makes no sense. But this is exactly–

Dr. Joe Chappelle: The relative risk that you would get no irrigation, or that you would get irrigation, I don't know. Okay, anyway. A couple of things. One, the population was… In my head, I couldn’t tell if it was relatively young or relatively old. I guess it’s probably in the middle, 26, 27. I feel like where we are now, we get a lot of women in their thirties, that seems to be the normal age where I am. But other parts of the country it probably skews younger. We have a more educated group up here, so we tend to get older women. And then… 35 was their average BMI in each group, which is… I can tell you, at Stony Brook, the last time I checked, which was about 2012, out average BMI was 28 or 29, so certainly higher than here. It is in Virginia, and the more south you get, the higher the BMIs get from what I’ve seen from other papers from out of Alabama and Mississippi and stuff, although Virginia’s not those places.

Dr. Heather Link: I had a question about that, then, because they gave one gram of Ancef as their standard preoperative prophylaxis, so when I read that, I was like, “Oh, wow, what a thin population you must have.” And then… Is that a 2012 thing?

Dr. Joe Chappelle: It might be a 2012 thing.

Dr. Jerry Ballas: Yeah, 2012.

Dr. Heather Link: Okay. Apologies.

Dr. Joe Chappelle: I’m trying to remember when that changed, and it probably was around that time. So, it was definitely after I graduated residency, so probably in that timeframe.

Dr. Jerry Ballas: Yeah, this is actually firmly in fellowship for me. And I remember… Because we actually have an obesity in pregnancy specific clinic, and when this started rolling out, I remember identifying patients in that clinic as two-gramers or one-gramers, so that’s how we started associating the differential dosing for size.

Dr. Joe Chappelle: Right. So, I bring up the age and the BMI because, again, when you’re looking at a paper, especially a paper like this, which is really about a clinical thing that we do on a daily basis and you want to say should I adopt this practice into my practice? You also need to look at the people and their population to make sure that your populations are similar, or if they’re different, that you don’t think that should affect the outcome. And so, looking at infectious morbidity, BMI is one of those things.

Dr. Jerry Ballas: You have to think it the other way, though. They don’t want people irrigating. This goes back to what you were talking about, that they were looking at an intervention not to… Like, you don’t want to do it to prevent something, so I would have just loved to have seen a survey of how many people were doing this. Was there nothing out there, even amongst their own staff? Was this a problem that was happening? Was it something like, people are just irrigating left and right and we need to stamp this out, basically? So, I don't know. That just hit me too, that this is just the purpose.

Dr. Joe Chappelle: I agree. I think more than likely… Actually, they say this in the paper. There was an experienced obstetrician that felt that people shouldn’t irrigate, and so went on this quest to do this study to see if he was right. That seemed like what it was. I’ve certainly been there. I have done studies because I have wanted to prove that I was right, and sometimes I’m right and sometimes the data is inconclusive.

And then, intraoperative outcomes. The only difference was in intraoperative nausea. In the no irrigation group, it was 28– I’m sorry, there were two differences, because this is actually important. The intraoperative nausea in the no irrigation group was 28.6 and in the irrigation group it was 46.4 with a p value of .007, so that’s definitely significant. And the other significant was uterus exteriorized, with 75% in the no irrigation group and 86.4% in the irrigation group, and that was a p of .047, so that was also significant. We’re going to come back to that in a minute. So, it was the only two things. Everything else was the same in both groups, the preoperative diagnosis of chorioamnionitis was 7% roughly, 7 to 8% in each group, so relatively low. Actually, that’s a decent rate of chorio. Lysis of adhesions, bowel packed, bilateral tubal ligation, closure of rectus muscle, there you go Jerry, to go back to our residency, closure of peritoneum, closure of the bladder flap, all those things. Intraoperative emesis interestingly was not significant between the two groups although nausea was. Operative time was roughly the same and estimated blood loss was the same, although it’s estimated so take that for what it’s worth.

Dr. Jerry Ballas: Interestingly, in the table, we look straight at the p value for uterus exteriorized as significant, but they actually, in their written-out results, list it as not significant.

Dr. Joe Chappelle: Yeah.

Dr. Jerry Ballas: And I guess their confidence interval they have is 1.04 to 5.09 from the multivariate analysis, I guess they…

Dr. Joe Chappelle: That’s actually the next thing I want to get into. They then did a multivariate logistic regression where they tried to control for exteriorizing the uterus, packing the bowel, lysis of adhesions, closure of the bladder flap, closure of the abdominal peritoneum and closure of rectus muscle. This sentence actually really bothers me, because I don’t understand. Maybe one of the two of you can again enlighten me. In this analysis, irrigation remained a significant predictor of nausea with an odds ratio of 2.09 with a confidence interval of 1.2 to 3.59. Other variables in the equation were not significant. Bowel packed was a confidence interval of 4.7 to 6.79, lysis of adhesions was .89 to 3.57, so all crossing 1. So, that’s fine, they’re not significant. Uterus exteriorized, confidence interval 1.04 to 5.09. That doesn’t cross 1, that’s significant.

Dr. Heather Link: Yeah.

Dr. Joe Chappelle: Unless I missed something. So, I was very confused by this. And the only thing I can think is that they did their models and when they added that in, there was no difference in the r2 and that’s possible, but they didn’t actually show us the models, and so it’s hard to know that. And I think about this because the paper I just got back from review, I do have logistic regression in there and I put my models in there because I feel like it’s important to show not only what’s significant as far as the confidence interval but also how much does it actually add to your model. If your r2 goes from .01 to .012, well it’s significant but it’s not really adding much to your model. And I would have liked I think to have seen their actual model data here to see that. But it’s definitely weird that they say it’s not significant when obviously it is, unless I’m misunderstanding the stat somehow.

Dr. Heather Link: No, I think you’re right.

Dr. Jerry Ballas: In their mind, were they just rounding down? It doesn’t make sense to report it as 1.04 but think to yourself, well, that’s 1. That seems neither scientific nor…

Dr. Joe Chappelle: Actually, if you look at the two things, if you look at the irrigation and the exteriorization, the irrigation is an odds ratio of 2.09 with an interval of 1.2 to 3.59, and then for the exteriorization, it’s an odds ratio of 2.31… I’m sorry, relative risk of 2.31, I don't know why there’s two things there, with 1.04 to 5.09, so they’re actually not that different. Anyway, so then you can start looking at uterus being exteriorized as a risk factor for nausea. And this has been studied, and again, I don't know how really great the studies are, but I looked at a few of them today, all the studies I could find, and there are a few randomized controlled trials, did not show any difference in nausea with the uterus being exteriorized. And so, I think it’s reasonable based on the previous literature to say that that’s not a factor for nausea. But then, given those papers, I don't know that I would have included it anyway, because it’s already been shown not to be. So, I don't know, I’m very confused by the whole thing. Alright, sounds like everyone’s confused, so I guess we’ll just move on, I’m not really sure.

Dr. Jerry Ballas: Were all those papers you reviewed before or after 2012?

Dr. Joe Chappelle: There were some reviews and meta-analysis and they were published in 2013, 2015, so some of the papers must have been before this paper was published.

Dr. Jerry Ballas: Maybe these guys were actually trailblazers.

Dr. Joe Chappelle: That’s possible.

Dr. Jerry Ballas: I’m trying to get out of my cynical hole and be more positive.

Dr. Joe Chappelle: I mean, I’ve also done this thing where I have done a lit search… Three people have done a lit search, exhaustive, basically every avenue I can, and then maybe six months later, as I’m going to write the paper, I do another lit search and I find a paper that was from 15 years ago which I should have seen that showed something that basically destroys my entire paper. I have seen that before. I’ve been down that road, so it does happen.

Dr. Jerry Ballas: Which is worse, that or finding the paper that just got published last month that says exactly what you wanted to say?

Dr. Joe Chappelle: Well, that happened to me like six months ago, so it’s alright.

Dr. Heather Link: I think it’s the last month one.

Dr. Joe Chappelle: Yes, that hurts more.

Dr. Jerry Ballas: Yeah, because often times…

Dr. Joe Chappelle: At least the other one you can just give up and say, that can go in the drawer and we’ll move on.

Dr. Jerry Ballas: And I feel like the longer you get in this game, the more, when that happens, you know the people on the paper and you’re just kind of like, oh I know you! I’m going to fire you a text now.

Dr. Joe Chappelle: Getting scooped is the worst.

Alright. So, then the postoperative outcomes is the third table. Again, there were no differences. I alluded to it earlier, but their rate of… No, here’s another editorial thing. In the text, they call it endomyometritis, and in the table they call it endometritis. I personally don’t care if you call it endometritis, endomyometritis, what’s the new one? Metritis with pelvic cellulitis. I don’t care what you call it, but just pick one and call it the same thing.

Dr. Jerry Ballas: Actually, this bring up the biologic plausibility part of it, and that’s what I was trying to put together here, because I was trying to think about why would irrigating potentially help with endometritis? Are you irrigating inside the uterus? But they want to say endomyometritis, so are you saving some sort of inflammatory process from the outside as well affecting the myometrium. And so, now the new pelvic… you said it.

Dr. Joe Chappelle: Metritis with pelvic cellulitis.

Dr. Jerry Ballas: Exactly. So, now, is that going to be a new era of research that we irrigate to prevent pelvic cellulitis, or something like that. That’s where I was getting a little confused as to why would the extrauterine environment, abdominal irrigation, help us with endometritis, which is a predominantly intrauterine disorder.

Dr. Joe Chappelle: Words matter and you’re absolutely right. The way we define things dictates how we think of them. And if you read, and this is actually Williams Obstetrics, I think they changed it to metritis with pelvic cellulitis maybe three or four years ago, five years ago… It’s been a while since they changed the term again in Williams Obstetrics. But they do quote some studies looking at specimens of women who had a hysterectomy, whatever it was, and it does seem to be a lot of actual pelvic cellulitis, and so we may be misnaming it even as endomyometritis, and it really just may be a pelvic inflammatory infectious response. Or it could start in the myometrium and then the inflammatory response goes to the pelvic peritoneum. But in any case, it just bothered me that they used two different terms.

But their rate was 9.5% in the no irrigation group, and to be fair, we’re talking about 12 patients there, so their actual number is small, so we have to remember that we have 126 in the no irrigation, 110 in the irrigation group, which is much less than their 184 in each group that they were aiming for but it was stopped halfway through. And then 7.3% in the irrigation group with 8 patients. Now, I don't know about you guys, but 10% rate of endomyometritis postpartum, if we had that in my hospital there would be fire alarms going off and I’d be getting a call from infection control. I don't know about you guys.

Dr. Heather Link: 10% is high.

Dr. Jerry Ballas: I feel like 10% of any infectious thing of any specialty anywhere in the hospital is going to get you some QI folks on your doorstep.

Dr. Joe Chappelle: Yeah. I don't know what to make of that, I don't know if that was just their criteria are very inclusive, there’s a very low bar to be included with that, or if there’s something else going on. Maybe it is what Heather was saying, maybe it’s the fact that they’re only giving one gram of Ancef and their BMIs were high, and maybe now in 2020 they don’t have this rate anymore because they’ve adjusted their antibiotics along with everyone else. It’s probably a combination of both, perhaps. But I definitely thought that was interesting and I flagged that. Again, it’s nothing to do with the paper necessarily or to do with the study, but maybe how you interpret the study and apply it to your practice. And I think your point, Jerry, earlier that if you wanted to include less people if you had a higher rate, then you’d be able to do that, if your prevalence was higher. So, I did actually go and calculate what the sample size would be needed to detect a 20% difference in endometritis with a 10% prevalence, and it was 581 in each group. So, we’re well below…

Dr. Jerry Ballas: That would be a residency plus fellowship program.

Dr. Heather Link: I think it took 20 months to get these 236, so that would be a lot.

Dr. Joe Chappelle: Right. We’ve gone long already, but we can talk in a minute about doing research as a resident and the obstacles. We can get there in a second, because I do know we have a lot of residents who listen, so they may be interested in that part of it. So, let’s go on to their conclusion.

Oh, by the way, I did look at some other literature about what is the published infection rate, endometritis rate, and it’s about 2 to 3% in the literature, so it’s not just us, they are about three times higher than what’s published in the literature.

Dr. Jerry Ballas: Even then, I remember at Baylor, at goal was 1 to 2%. I remember if we went above 1% on the running average, we started having meetings.

Dr. Heather Link: For c-sections or for vaginal deliveries too? Did you separate them?

Dr. Jerry Ballas: All rates.

Dr. Joe Chappelle: All rates, okay.

Dr. Jerry Ballas: Yeah, all rates.

Dr. Joe Chappelle: That 2 to 3% is for c-sections only. Vaginal I think it’s like .17% or something, it’s quite low.

Alright, so then I want to read their conclusion. Our study demonstrates that irrigation at the time of caesarean delivery increases intraoperative nausea without any beneficial effects on postoperative maternal GI status or maternal infectious morbidity. What do you guys think about that? I’ll start with Heather.

Dr. Heather Link: As you’re reading that out loud, the beneficial effects on maternal infectious mortality is just really odd wording. This is the last part of the discussion section that I had an issue with.

Dr. Joe Chappelle: We can go back to your other issues in a second.

Dr. Heather Link: Okay. I think it’s a… In a study that stopped a little bit early and then didn’t adjust for their early stoppage by potentially adjusting their p values or trying to do any additional calculations, I think it’s a little bit of a bold statement.

Dr. Joe Chappelle: Yeah. I think my biggest issue with it is the part on maternal infectious morbidity, considering they weren’t powered to look at that, and so it’s hard to make any statement about that. Jerry, what were your thoughts?

Dr. Jerry Ballas: I give them credit, they shot for the moon and the Green Journal took it. I mean, as someone that enjoys the run-on sentence and thinks a period is the worst thing ever, you start from there and then you have the reviewer come back and tell you, “Nice try, you did not cure cancer with your study. Back it up and actually just talk about your actual outcome.” So, I think the first half, they nailed what their question should have been and then maybe could have put a period there and said something like “Future studies could explore whether this also has an effect on infectious morbidity.” Agreed, but you got to give them some credit, they got it by…

Dr. Joe Chappelle: Yeah, the reviewers.

Dr. Jerry Ballas: They got it by some reviewers, so…

Dr. Joe Chappelle: Yeah. I mean, one of our mentors, actually Jerry, always told me that the discussion is a place for you to make statements that are not backed up by your evidence.

Dr. Jerry Ballas: Oh, yeah. Absolutely. And so, you’re just kind of poking the bear to see what you can get. Absolutely.

Dr. Joe Chappelle: So, let’s go back. Heather, what were your other issues with the discussion?

Dr. Heather Link: I felt that they did highlight some of their weaknesses notably, but I was surprised by the depth with which they went into them. I appreciated that they mentioned the lack of a standardized tool to inquire about the intraoperative symptoms, and we talked about how your primary outcome was a composite outcome but you don’t break that down, but then you’re talking about how this could have influenced your primary outcome. And I wonder how did you see your data that it made you think that you have to worry about that but we don’t get to see that as well. And focusing again on their infectious morbidity, when they discuss how their study was stopped at their planned midpoint because their recruitment was slower, they didn’t feel it would change their outcome because their study design was predicated on no differences in postoperative infection rates as observed in previous studies, that was the part where I was like wait, did I get the primary outcomes confused? Because as you said, that wasn’t what you powered your study for at all. When you’re addressing the critique or even the potential critique of stopping the study early, that was just the part that I was the most surprised about that made it all the way through the reviewers to the end. Just the justification they gave for that. That’s why I was less concerned that it made it into the last paragraph, because I was like, it’s the whole paragraph before and it doesn’t make sense.

Dr. Jerry Ballas: And I’m going to move back even earlier in the discussion, just to move back a little bit more, because the introduction was sparse but then, in the discussion, they start off with these grand sentences like, irrigation at the time of caesarean delivery is classically described as a fundamental step in most obstetrical texts. Again, no citation.

Dr. Heather Link: No citation!

Dr. Jerry Ballas: And then the next one, going back to your point. The incidence of intraoperative nausea, bla, bla, bla, with rates up to 80% reported.

Dr. Joe Chappelle: No reference.

Dr. Jerry Ballas: No citation. Where is that coming… So, not only does it need citation, but why isn’t that in the intro?

Dr. Joe Chappelle: Introduction, good point.

Dr. Jerry Ballas: Because I feel like that would have streamlined our thought process that this study is about irrigating and causing nausea in a section. It’s a beautifully simple question. I want to give these folks props for getting a randomized controlled trial done in residency with a simple question. I’m not sure why they added on… Almost like it was a bloated bill trying to get through Congress, you just keep adding things and adding things and hoping it gets through. Just stick with that simple question. We noticed at our institution a lot of women were miserable during c-section possibly because of irrigation, so we’re going to investigate that. Not irrigate some, irrigate others and see if they get nauseous. I mean, was it not sexy enough? Did they not think it was going to be a long enough paper? I think that’s a great question. And they got it done.

Dr. Heather Link: It’s so great. That was the part of this that I loved. That someone was like, “Hey, why do we do this? We should look at this.” And did it. And did it as a resident. And got it in the Green Journal despite of all these interesting things that we’re noticing in the paper. Huge props! But lots of opportunities or possibilities for bias that I think went unchecked.

Dr. Joe Chappelle: I can see probably how they got to where they got, because if someone came to me with this question, what I would probably say to them is how much nausea is it worth to prevent one case of endomyometritis? Until you can prove to me… Again, I don’t irrigate, but until you can prove to me that not irrigating doesn’t increase your rate of endomyometritis, then why would we stop?

Dr. Jerry Ballas: Or prove to me that irrigating prevents endomyometritis.

Dr. Joe Chappelle: Either way. But if you’re going to go from a first do no harm point of view, prove to me it doesn’t help. If you can prove to me it doesn’t help, that’s great. Then I’ll stop. But just because it causes GI nausea, or call it disturbance, that doesn’t mean I should stop if it’s actually still doing good. And they have not shown that it doesn’t not do good. Whoa. There are triple negatives in there. I’m not really sure, but you understand what I’m saying.

Dr. Jerry Ballas: So, the big question is…

Dr. Joe Chappelle: if they came to me, I would have said that, and that’s probably what happened here. Probably someone said, well, you have to look at postop infection because that’s why I’m doing it. I’m not doing it because of nausea, I’m doing it because I want to make sure they don’t get infected.

Dr. Jerry Ballas: So did it change their minds? I wonder.

Dr. Joe Chappelle: Well, did it change your mind?

Dr. Jerry Ballas: I’m still going to do my sloppy wet and put my Yankauer in there, because it gives me an opportunity to talk to the residents and tell them, this is how I learned in residency. It’s just my spiel.

Dr. Joe Chappelle: Fair enough.

Dr. Jerry Ballas: And I don’t think it’s doing any harm.

Dr. Joe Chappelle: Maybe you should do a randomized controlled trial.

Dr. Jerry Ballas: Challenge accepted.

Dr. Joe Chappelle: Usually, at the end of a paper I will then say, are you going to take this, whatever this data is, are you going to apply it to your practice? Jerry basically answered that and he’s going to keep doing what he’s doing based on what he believes to be right, based on no evidence, which I appreciate. And Heather, how about you?

Dr. Heather Link: I will take this paper and not irrigate a liter.

Dr. Jerry Ballas: There you go.

Dr. Joe Chappelle: 500 to a liter.

Dr. Heather Link: 500 to a liter.

Dr. Jerry Ballas: I can tell you confidently that even that sloppy wet has nowhere near 500 nor a liter of fluid in it.

Dr. Joe Chappelle: Fair enough. Alright, so let’s circle back and end on a positive note. And you guys kind of already went there a little bit. But doing any randomized controlled trial at any point in your career is hard to do. Even getting it through the IRB and then actually enrolling patients, making sure you stick to your protocols. It is an undertaking. And you’ll notice that there are only three names on this paper.

Dr. Heather Link: Yeah.

Dr. Joe Chappelle: Most RCTs that you see will have many, many names on them, because it takes a village to do an RCT in most cases. The fact that there are only three names shows you that it was a small group of people who did this, which also means that they were probably fighting against the stream here. But I think Heather, you said it the best. Not only did they think… they had a question that was good, they thought of it, they wanted to answer it, they designed the study, they got it approved, they enrolled patients probably in their free time – whatever free time someone has in residency – or while they’re on labor and delivery between c-sections or trying to enroll people, and then they analyzed it, wrote it and submitted it, went through probably a review or two and then got it accepted to the Green Journal. That’s a feat and it should be applauded at any stage in anyone’s career because it’s hard to do, especially usually in the Green Journal. So, that’s my positive spin. You guys have basically already said that, but if you have any other comments…

Dr. Jerry Ballas: No. If there are any residents or fellows listening to this, you too can do a randomized controlled trial in residency, just find the right question and the right mentorship.

Dr. Heather Link: Do either of your programs allow residents to share RRD projects? Like, to take a bigger project like this and to put two residents on it?

Dr. Jerry Ballas: At Baylor, at the time that I was there, I became co-chair of the resident research committee and program leading up to their RRD, and we came out with five different types of research projects that were acceptable for a resident research project. The usual case control, et cetera, chart reviews. But we actually toyed with the concept of these shared larger studies that typically would take many years to create a cohort that could pass the study down to junior residents and take on another part of it. So, basically it had to be a multipart study so that the resident definitely has something to analyze and present that’s appropriate for resident research day, but also had a continuing component to it that allowed for residents to build upon the former residents’ work. I can tell you in the time I was there, that was my second or third year that we really implemented it, nobody had taken it up while I was there. I have to research and find out if anyone’s carried through with that. But right now I can tell you with COVID, we have so many different ways we’re going with our data that we’ve teamed up some residents to be the COVID research residents if they have an interest in it, and so are going to parcel out whatever we can moving forward.

Dr. Joe Chappelle: Yeah. We don’t really have necessarily structured formally like that, but thankfully, over the last ten years, I’ve been able to really help foster a significant resident research culture here. Me amongst others. And what that has led to is most residents will try and start, and some complete, two or three projects during their time here. And they may not finish one or maybe they get the IRB in but then the other project is the one that ends up taking off, and they might pass that down to another resident or they’ll do, I don't know, a quarter of the data collection and they pass it down to the next person who’s going to do 75% of the data collection. And I’m generally okay with that as long as the resident who ends up presenting it really does a share of the work and is involved in the analysis and the interpretation of it.

I’m fine with that, because to me, I think we talked about it on this show before, maybe not with the two of you, but what is the point of resident research? Is the point the project or is the point the journey? And to me, the point is the journey, the point is when you go to read a paper like this, you know what it’s like to try to do that kind of study and you know where the pitfalls are and you know… When they present to me in some way, you’re like, okay, I know why they did that because I’ve been there. And that’s what I want them to get out of it, not necessarily a publication in the Green Journal, although that’s also nice. So, yeah, we do, but not as formal as Jerry.

Dr. Jerry Ballas: Yeah. I mean, Baylor, part of the reason we formalized it too is that it’s a huge program. It can we unwieldy. You have twelve per year. So, it’s a lot easier if some gazelles start to stray off over time and you don’t realize it until it’s mid-second year and you realize that the eleventh out of twelve resident doesn’t have a project, et cetera. So, it was a nice way of incorporating it into their didactics, this constant reminder and encouragement too, because I also incorporated work in progress session where the resident would actually create a PowerPoint of where they’re at in their projects, stand in front of their classmates and…

Dr. Joe Chappelle: So important.

Dr. Jerry Ballas: Yes, start practicing the RRD that isn’t for another year and a half or so. So, it was beneficial in that regard too, but there’s always a component of the miracle of RRD no matter what you do, though.

Dr. Joe Chappelle: Agreed. Yeah, we do two sessions a year where the second years have to present their idea and then halfway through they have to present where they’re at, and third years at the beginning of the year have to present where they are and then we get into RRD. Because if you don’t do that… Again, they’re all miracle. This year is weird because of COVID, but even without COVID four out of the five residents well before RRD, like three or four months before, had completed their projects, had done their analysis and had made their PowerPoints.

Dr. Jerry Ballas: Wow.

Dr. Heather Link: Wow.

Dr. Joe Chappelle: They are on top of it.

Dr. Jerry Ballas: And are you still doing fourth year as their required presentation or do you do third year now?

Dr. Joe Chappelle: Third year.

Dr. Jerry Ballas: Okay.

Dr. Joe Chappelle: Yeah. Fourth year there’s too much stuff going on being a fourth year. I don't know, Heather, when did you guys present in residency?

Dr. Heather Link: In residency, we presented fourth year.

Dr. Jerry Ballas: Yeah. We were fourth year traditionally, that was our graduation all in one program.

Dr. Heather Link: I don't know how we could have gotten it done. There was a lot of miracle-ing that whole year but…

Dr. Joe Chappelle: The miracle just moves earlier.

Dr. Heather Link: Yeah.

Dr. Joe Chappelle: But I mean, halfway through the intern year I’m already sitting down with the interns and saying, what are your projects? What are you looking at? Let’s get your IRBs in. So, by the time second year starts they should have their IRBs approved and should be working on data. And that doesn’t always work out, but most of the time it does. But fourth year is too late. By the time you… You’re trying to study for your boards, maybe trying to move or trying to find a job. Here at Stony Brook they all give grand round second half of their fourth year, so you’re trying to prep for a ground rounds and also your RRD? It’s just too much stuff. And be a resident, and a chief resident, which is not an easy job. So, I’m glad we don’t do that. Sounds like torture.

Dr. Heather Link: We did it April, I think, of fourth year. March or April. So, nobody… you weren’t really studying for boards by then.

Dr. Joe Chappelle: You weren’t studying. No, you weren’t.

Dr. Heather Link: But grand rounds was a third year project.

Dr. Joe Chappelle: Okay. Interesting. So, you reversed it.

Dr. Heather Link: Beginning of third year. The summer is always the new thirds years doing their grand rounds. Fills the summer speaker slots.

Dr. Joe Chappelle: That’s a very valid way of doing it.

Alright, any final thoughts on this paper? I think we beat it to death. It was a good question, I think. I think that there were some issues with the way they designed it, especially with the way they didn’t control the anesthesiologist especially, and I think there was a lot of issues in the actual paper itself and the way it was written. I think we highlighted most of those, some questions about the stats. And also, I’m going to say it again, but this paper is from 2012 and even the standards for how papers are written and whatnot changes as time goes on. You can go back ten years before this paper, and you will find conventions that we do now that they just didn’t do then. And so, I hate to judge a paper based on time but there are definitely some questions that if this was submitted today, I think would have been asked. Jerry, any final thoughts?

Dr. Jerry Ballas: No. I, again, give them credit for coming up with this project in residency. Past me is jealous of them. And I think it’s always good to work through even published works, don’t take them as gold all the time and always look to improve upon them for further studies.

Dr. Joe Chappelle: That actually is a very good point, which I think we kind of made implicitly but I’m glad that you said it explicitly. The purpose of doing journal club is to critically analyze the papers to decide what you’re going to incorporate or not, and you can’t do that until you critically analyze it. Heather, how about you?

Dr. Heather Link: As we’ve already said, amazing job having this project done. Are you familiar with the excellence course?

Dr. Joe Chappelle: Yes.

Dr. Jerry Ballas: Oh, yeah.

Dr. Heather Link: Reading this and especially when it was… how they had laid it out and done everything and tried so hard to set their RCT, there was a moment where then, when you got to the potential bias of the anesthesiologist it was like, you took half the course. Dr. Grimes would have had such things to say. I think my final thought was that even if they hadn’t found a difference, biases and everything aside, I would have hoped to have seen this paper published anyways, because I think there’s a lot to be gained from negative papers, and there was a part of me that was wondering if perhaps some of the data stuff that was happening was happening to show a difference when in reality it’s still valuable if it’s not. And we can still incorporate more into our practice from that. My dream one day of a New England Journal version of the journal of negative studies, with really excellent research that doesn’t show a result, that gets published. Would happily accept a larger or different version of this.

Dr. Joe Chappelle: Absolutely agree. There is, especially on these kinds of questions, where it’s stuff about what we do every day, whether it’s positive or negative I want to know the answer. Because even if the answer is we don’t know, okay that’s fine, then I’ll continue doing what I do understanding that we don’t know if there’s any difference or not. But I’m glad that someone asked that question and now I know that we don’t know. That’s very valuable. Again, obviously I enjoyed this paper, otherwise I wouldn’t have selected it to review tonight. So, I appreciate the two of you spending your time both to review it and then go through with me.

For the podcast in general, I think this is going to be hopefully a return to form. Going to try to do an episode again next week. Should be interesting, on infertility and whether that is a human right. Treatment for infertility and whether that’s a human right or not, which I think is going to be a great discussion. And hopefully, we’ll have another journal club next month and the month after that. If any of you guys, the listeners out there, the feedback@obgyn.fm is how you can get feedback back to us. So, if you have questions about the paper or you don’t like how we reviewed it, you think we missed something, please let me know. If you have a paper that you want us to review send it to me and I’d be happy to look at it. And then, if you have new topics that you want to hear from us, please let me know. I am planning some more topic-based podcast episodes in the months ahead, so please let me know that. And I’ve been trying to get Jerry to do a contact episode for three or four years now, so if you have something you want Jerry to talk about, please let me know so I can tell him to do that.

I think that’s all I have to say. Thank you both so much, and I look forward to doing it again soon.