- 09:57:39 Michelle Waschak Bluepearl Columbia, SC: Thank you Meredith!! WE love you!
- 10:16:58 Alex Fox-Alvarez-UF (he/him/his): Does anyone here use partial ligation clinically?
- 10:17:57 Karen Tobias: I have used it in rare cases of IHPSS where I can't get an ameroid constrictor and am uncomfortable with the cellophane available (or polyolefin). Most of the ligation articles come from Europe.
- 10:18:29 Nicole Buote: At Cornell they do:)
- 10:18:55 jgrimes: Nicole, are they doing it for specific cases or doing partial ligation routinely?
- 10:19:01 Julia Sumner: Traditionally at Cornell we have been doing full and partial ligations
- based on intraoperative portal pressure measurements but this is probably going to change....
- 10:19:48 Nicole Buote: They will routinely do intraop portogram, check pressures and try to ligate completely. If they can't they partially ligate.
- 10:20:11 jgrimes: Thanks Nicole and Julia! Does anyone use ameroids or cellophane? Curious why they may not!
- 10:20:31 chick weisse: i will occassionally ligate if great portal perfusion, otherwise mostly aneroids unless large breed EHPSS with huge shunt then partial ligation but these are very uncommon for us to see.
- 10:21:03 Nicole Buote: I think there was a bit of history here but we have cellophane and ameroids here now:)
- 10:21:11 Bryden J. Stanley: I miss doing manometry...
- 10:21:21 Karen Tobias : bwa ha ha!
- 10:21:26 jgrimes: I pull out the manometer every once in awhile to amaze the residents.:)
- 10:21:38 Bryden J. Stanley: oh yeah, good idea...
- 10:21:44 Julia Sumner : random number generator :)
- 10:21:46 Michelle Waschak Bluepearl Columbia, SC: I can't find my old manometer, hard to get a new one.
- 10:21:51 SVSTS Stream : lol @ Julia!
- 10:21:59 Nicole Buote: I hadn't done any intra op pressure even in residency...it was interesting to see:)
- 10:22:33 jgrimes: How many of the partial ligations patients came back for full ligation vs. remained on medical management vs. maybe were weaned off of medical management do you think?
- 10:22:36 chick weisse: i think it is important to make sure residents are comfortable doing mesenteric portography and pressures measurements. all you residents out there ask someone to show you how to do it before you finish!!
- 10:22:58 Karen Tobias: I'll talk about second surgeries in part II...
- 10:23:42 Julia Sumner: I looked at our numbers recently and we were able to ligate completely around 66% of cases with a pretty low complication rate, but as Nicole we now have cellophane and aneroids:)
- 10:23:59 Alex Fox-Alvarez-UF (he/him/his): Solid advice Chick! it was a circus first time I tried post-residency! haha, catheter fell out like 4 times.
- 10:24:04 jgrimes : Thanks Julia!
- 10:25:55 Michelle Waschak Bluepearl Columbia, SC: Are you all still using the glass graduated cylinder or is there some new type or automated manometer? I had a hard time trying to find one to purchase last year. I think mine was thrown out by someone not me.

- 10:26:20 jgrimes: I've been hooking it up to an art line system so no actual water column because we don't have those here at UGA.
- 10:26:29 Bryden J. Stanley: Yes, glass cylinder... very 1904 Halstedian
- 10:26:32 Alex Fox-Alvarez-UF (he/him/his): same as Janet
- 10:26:42 Karen Tobias: there are plastic manometers....
- 10:26:50 chick weisse: we use the "compass" device..recently bought out by cook i think and may be more expensive now. great digital manometer. was about \$50/each.
- 10:27:08 Julia Sumner: Ours are long tall plastic one it reminds me of high school science experiences
- 10:27:14 jgrimes: I prefer the plastic water column. It's exciting when the saline shoots out to top with high pressures.:)
- 10:27:18 Julia Sumner : experiments....
- 10:27:20 SVSTS Stream:
- https://www.cookmedical.com/products/f3aab96e-30b5-4796-af4c-c5afad846923/
- 10:27:32 Michelle Waschak Bluepearl Columbia, SC: Thx all!!
- 10:27:56 Julia Sumner: sadly have to leave for the floor.... Great discussion and talk!
- 10:27:56 Farrah Horowitz : Do you start any preop management if they are "incidental" EHPSS (ie. not HE, pdvm worked up increased LES).
- 10:28:13 Karen Tobias : all our dogs go on a liver diet and lactulose
- 10:28:24 Farrah Horowitz : thank you!
- 10:28:41 Karen Tobias : Some owners don't realize their terriers should be yappy, boisterous dogs. They are pleased to have a quiet lap dog. Hahaha
- 10:28:58 Farrah Horowitz : true story
- 10:29:49 Bryden J. Stanley: Yes owners have told me I made their puppy naughty (aka Normal)
- 10:29:49 Nicole Buote: Chick do you hook the compass up to an extension line from the mesenteric vessel?
- 10:30:14 SVSTS Stream:
- https://www.cookregentec.com/wp-content/uploads/2018/11/CompassCTPort_rotator03.png 10:30:18 Karen Tobias : when using a manometer, I use an extension set if I am also going to do a portogram.
- 10:30:34 Karen Tobias: an extra extension set...
- 10:30:53 chick weisse: yes...t-set attached to mesenteric vein catheter attached to compass device. the device must be placed at the level of the right atrium when it is turned on. also can attach to regulate diagnostic catheters in the PV, CdVC, etc...
- 10:31:04 Elizabeth Swanson : I've used the same plastic water manometer as people use to measure CVP.
- 10:33:19 Nicole Buote: Thanks so no extension line between the t-set and compass. Good to know. We'll look into getting one and try it out:)
- 10:35:01 chick weisse: you need an extension set between t-set and compass. makes no difference as long as no air in the line...
- 10:35:41 chick weisse : just like a water manometer set up...
- 10:35:51 Bruce Nwadike: What's your rec dosage for Ace CRI?

- 10:37:26 Karen Tobias: for ace promazine, I look at the dog's response. If 0.1 mls keeps them quiet for an hour, then it's 0.1 mls per hour.
- 10:37:39 Karen Tobias: No problem with decreased drug activity with light exposure.
- 10:37:43 roberthardie: We just use an IV extension set and measure the height of the saline column (cm) the level of the heart (just below table top) as baseline and compare to temporary post ligation level height
- 10:37:54 Karen Tobias: Haven't used ace in a while because I like dexmedetomidine
- 10:38:07 Bruce Nwadike: thx!
- 10:39:09 Michelle Waschak Bluepearl Columbia, SC : Are you using Dexmed as your premed? Dose? OR still low dose Ace?
- 10:39:35 Nicole Buote : what are peoples thoughts on dogs with staghorn nephroliths and PSS?
- 10:39:50 Karen Tobias : our anesthesia service controls premeds, but when I use dexmedetomidine for scintigraphy, I used 3 mcg/kg
- 10:42:53 Distance Vet Med Eric : How many people are using scintigraphy in their shunt work up?
- 10:43:20 Steven Baird: I use dexmed more and more. It seems more reliable and I like the idea of not causing peripheral venous dilation. I mostly use 2µg/kg
- 10:43:35 Karen Tobias : UTCVM we use scintigraphy in most
- 10:44:00 Distance Vet Med Eric : UTCVM is after my heart
- 10:44:40 Karen Tobias : we are lucky because scintigraphy here only costs about \$200-250
- 10:45:52 Nicole Buote: Very interesting... so we should wait and see
- 10:45:57 Nicole Buote: thanks:)
- 10:46:41 Michelle Waschak Bluepearl Columbia, SC: What is your thoughts on operating dogs diagnosed after 3yrs of age.?
- 10:47:54 Michelle Waschak Bluepearl Columbia, SC: ha ha
- 10:48:49 jgrimes: One of our abstracts this morning is focused on older dog shunts, so will be interesting to see what they found in that study also!!
- 10:49:03 Mariana Quina: I just recently did an 8yo dog who had 2 obstructions from urate calculi. He ended up doing well despite the giant ulcer I developed
- 10:49:14 Bryden J. Stanley: Does Karen treat pugs any differently?
- 10:49:39 Steven Baird: Great mindset for discussing options with owners thanks
- 10:49:59 Michelle Waschak Bluepearl Columbia, SC: What do you say when Medicine wants GI biopsy at the time of shunt attenuation surgery?
- 10:50:02 Ronan Mullins : everyone doing omeprazole for life postop with CIHPSS? gi ulceration etc.
- 10:50:30 Heidi Hottinger : I have been seeing schnauzers present at older ages--about 5 years. And they have all been doing great postop. knock on wood.
- 10:53:14 SVSTS Stream: I keep my IHPSS on life-long omeprazole per Chick & Allison's paper 10:57:08 Steven Baird: Does any one do routine liver biopsy at surgery? or only for suspected CPVH/MVD?
- 10:57:08 Michelle Waschak Bluepearl Columbia, SC: Interesting- do the patients have life long GI symptoms? Curious if there is any long term affects of Omeprazole in dogs as in humans.

- 10:58:18 Karen Tobias: For liver biopsies, the question is whether the pathologist can detect congenital portal vein hypoplasia versus portal underperfusion. Ours do not see a difference, so we cannot say they do NOT have CPVH.
- 10:58:19 Michelle Waschak Bluepearl Columbia, SC: I still biopsy liver as requested by my IM folks.
- 10:58:44 Janice Buback: I always biopsy the liver as well
- 10:58:44 Karen Tobias : We have had one or two cases of bacterial overgrowth on long term omeprazole.
- 10:59:21 Nicole Buote: I always biopsy. With Sharon Center here we get pretty in depth results.
- 10:59:57 Karen Tobias : If I see lipid granulomas and fibrosis on liver biopsy, I get very worried...
- 11:03:10 Farrah Horowitz: Question about operating older dogs if we are assuming a low level unnoticed HE in pups that are diagnosed "incidentally" and starting preop medical management and then recommending surgery, why would we not encourage the same for older dogs that have gone undiagnosed for several years?
- 11:03:47 Karen Tobias: I have them go on medical management for at least 3-4 weeks.
- 11:05:10 Nicole Buote: do you have a weight that you won't put an ameroid in? 2kg? less?
- 11:05:37 Karen Tobias : I will place ameroid constrictors on any weight. Smallest dog was a 9 week old Yorkie.
- 11:05:50 Nicole Buote: Sounds good!
- 11:06:19 Lindsay St. Germaine: Does anyone worry about kinking of the shunt vessel with ameroid? particularly in very small patients?
- 11:06:47 Karen Tobias: if you are careful with your dissection and right at the insertion, the ameroid gets caught in the fascia and is suspended.
- 11:07:09 Lindsay St. Germaine: makes sense thanks
- 11:07:32 jgrimes: I will sometimes pass a suture through the ameroid and suture it dorsally to whatever I can find to prevent kinking when the dog is in normal recumbency. Not very often, like Karen said, if you keep the dissection minimal there's not much room for it to move.
- 11:07:34 Karen Tobias: I am sure that many of the gastrophrenic shunts are "kinked" at surgery. The shunt goes up and over the ring on the esophagus.
- 11:13:10 Michelle Waschak Bluepearl Columbia, SC: Is anyone coiling the EHPSS for revision rather than second surgery?
- 11:14:23 Alex Fox-Alvarez-UF (he/him/his): I usually feed small frequent meals post-op in dogs wrings placed near the stomach to prevent any kinking/movement of the ring from a large full stomach.
- 11:14:42 Michelle Waschak Bluepearl Columbia, SC: So you are not using the thin ameroids-using the standard 3.5-5-7-9?
- 11:14:59 Karen Tobias : Only standard thickness
- 11:15:05 Alex Fox-Alvarez-UF (he/him/his): What's the status on the device reaching market @Mandy Wallace?
- 11:16:06 Karen Tobias: I've only had one ring I felt shifted postop. That dog had abdominal pain when sternal but not when dorsal. I kept it in dorsal recumbency for a day then allowed it to flip and it was fine. Very stressful 24 hours....

- 11:17:06 Mandy Wallace-- UGA: Unfortunately, we were working with a manufacturer, but it did not work out to move forward to market. I am hopeful that we can move forward with development of a similar device that we can more easily manufacture or with this device in the near future.
- 11:17:08 jgrimes: How did you keep the dog in dorsal for a day? Lots of sedation and padding in the cage? I'm trying to imagine doing this!
- 11:17:09 Alex Fox-Alvarez-UF (he/him/his): hahaha, logistics would be interesting for 24h of dorsal recumbency!
- 11:17:26 Karen Tobias: sedation and padding. Now I would invest in a baby sling....
- 11:17:35 Alex Fox-Alvarez-UF (he/him/his): Awesome, looking forward to it Mandy!
- 11:17:35 jgrimes : baby sling would be a great idea!
- 11:19:20 Karen Tobias : hamburgers make me slow and less responsive to cortisol and epinephrine...
- 11:19:43 Alex Fox-Alvarez-UF (he/him/his): Ditto!
- 11:20:16 Steven Baird : what's the optimal hamburger dose?
- 11:21:05 Karen Tobias : quarter pound meat, \quarter cup catsup.
- 11:22:06 Michelle Waschak Bluepearl Columbia, SC: No use of NSAIDS in any shunt cases?
- 11:23:18 Karen Tobias: I avoid NSAIDS on all shunts. If shunt is closed and dog is now a "normal" Yorkie, then I don't avoid them at that point.
- 11:23:30 Michelle Waschak Bluepearl Columbia, SC: Great THx
- 11:23:35 Steven Baird : paracetamol?
- 11:23:43 Steven Baird: (acetaminophen)
- 11:23:56 Nicola Volstad: which analgesics do you use when sending home?
- 11:23:58 Karen Tobias : I try to avoid that as well. No idea how much liver function they need for it.
- 11:24:28 Karen Tobias : They all stay 2 days after surgery. We send home gabapentin. If they need extra, we give oral buprenorphine.
- 11:24:54 Karen Tobias : Many are not painful 2 days after surgery, especially a quick EHPSS surgery- not much different from a spay.
- 11:25:07 Michelle Waschak Bluepearl Columbia, SC: What dose of Gaba- I had a pretty sleepy shunt on this.
- 11:25:52 Karen Tobias: Trying to look up in our records....
- 11:25:55 Janice Buback: Are you using Liposomal bupivacaine on linea?
- 11:27:05 Karen Tobias: We do bupivacaine blocks. Not the liposomal; too expensive at this point. Our anesthesiologists are also doing ultrasound guided TAP blocks.
- 11:27:11 Karen Tobias : gabapentin 10 mg/kg
- 11:27:50 Alex Fox-Alvarez-UF (he/him/his): our anesthesia dept loves local blocks. They do TAP blocks on all of our shunts, and they are very comfortable post-op on gabapentin.
- 11:27:56 Michelle Waschak Bluepearl Columbia, SC: I do use Nocita along incision. Now that we get small bottles of Nocita and use for up to 4 days cost is ml by ml. Thanks for GAba dose.
- 11:28:36 Steven Baird : sorry for ignorance what is a TAP block?
- 11:29:21 jgrimes: For the liposomal bupivacaine Our pharmacy will not let us use the vials for longer than the label even though it's been proven to be safe for several days. We also have trouble splitting vials so it's still not super easy to use for us, unfortunately.

- 11:29:38 Alex Fox-Alvarez-UF (he/him/his): Transversus Abdominis Plane Block. They use ultrasound to target the transversus plane
- 11:29:46 Karen Tobias: TAP block: ultrasound guide instillation of bupivacaine in four spots I think between the internal abdominal oblique and transversus abdominus. Supposed to be gold standard in people, I will eagerly await some clinical data from our people...
- 11:30:55 Elizabeth Swanson: Our anesthesia service keeps the liposomal bupivicaine in their Cubex. We still don't use a vial beyond the same day it's opened, but we will divide a vial between patients to make it more cost-effective
- 11:31:11 Janice Buback: We split Nocita bottles amongst patients through a 24hr, period, Just divy it up based on calculated doses—also do dilute it, and then charge everyone the same fee for local anesthesia whether it was 1ml or 8ml of the bottle.
- 11:32:02 Steven Baird: thanks!
- 11:33:35 heathermillard : for post-op ascites with IH left divisional, does anyone have a specific protocol that he/she likes with lasix and spironolactone?
- 11:33:46 Aylin Atilla, University of Calgary: I'm learning so much from the chat as well as the presentations!
- 11:36:43 chick weisse: we have not appreciated problems with long term omeprazole...some dogs don't tolerate omeprazole according to owners but this is usually early on...not later
- 11:36:58 Steven Baird: When thinking of second surgeries and difficulty with re-dissection is there a place for leaving a polypropylene loop for later ligation is required? Or is this just adding to implants with a low likelihood of being needed?
- 11:37:03 Cassie Lux: I've had a couple of cases with acute rises in liver enzymes and WBC that responded to antibiotics
- 11:37:12 chick weisse : we saw 15% of IHPSS have GI bleeding before any procedure performed...
- 11:37:22 chick weisse: likely underestimated too
- 11:37:47 chick weisse: look at globulin levels...shouldn't be low with IHPSS but when you see that pre-op you should be concerned about GI loss...
- 11:38:05 Antoine BERNARDÉ: when using cellophane banding, do you attenuate at 50% or do you let it large expecting that fibrosis will attenuate later"?
- 11:38:31 shiori: has anybody used ductular reaction to predict post op development of ascites...??
- 11:39:14 jgrimes : Chick, can you explain what you see when the dogs do not tolerate omeprazole?
- 11:40:07 chick weisse: owners claim GI upset. weird. then i go to H2 blockers instead.
- 11:40:16 jgrimes: Interesting, thanks!
- 11:40:58 Steven Baird: I get this omeprazole occasionally with BOAS dogs
- 11:41:00 Bryden J. Stanley: I see some Frenchies that don't tolerate omeprazole as well.
- 11:41:06 Steven Baird : snap
- 11:41:12 Bryden J. Stanley: Haha
- 11:42:20 Bryden J. Stanley: Pugs???
- 11:43:16 Kelci McKeirnan Animal Emergency & Specialty: I've found more GI signs in Pugs with omeprazole when prepping for BOAS. Feel they also don't tolerate cisapride as well too....

- 11:43:33 Ronan Mullins : how long people keep shunt dogs in hospital postop? for observation for possible neuro complications
- 11:44:28 Antoine BERNARDÉ : thanks
- 11:44:58 Alex Fox-Alvarez-UF (he/him/his): YES THANKKK YOUUU!!!!
- 11:45:14 shiori : thank you!
- 11:46:36 Steven Baird : Ronan, we usually send home the next day, but also have most owners within 1 hour of the hospital. What do you do?
- 11:47:38 Alex Fox-Alvarez-UF (he/him/his): We usually keep for 24-48h depending on how they look post-op
- 11:49:10 Karen Tobias: I think that is the big issue- many of our owners travel great distances, so we make sure the dogs are ready to go without analgesics, sedation, etc. I think excitement may increase the risk of seizures (personal experience- dog sees owner and had generalized seizures), so I try to watch them for 2 days to make sure they look neurologically stable.
- 11:54:31 Karen Tobias: Bryden, I had one pug that was supposed to have surgery on a Friday but we had too many emergencies and we delayed surgery to Monday. It had seizures on Saturday. Maybe they were hypoxic seizures, maybe the dog aspirated. But it made me wonder how many of my postop "seizing" pugs were having postattenuation seizures versus some other cause (respiratory).... I have had dogs with distemper, GME, hydrocephalus on post. Who knows what goes on in those brains.
- 11:56:10 Karen Tobias: I wonder how many of our shunt dogs have other issues- IBD, etc.
- 12:16:41 Michelle Waschak Bluepearl Columbia, SC : Great Study!!Can't wait for clinical update.
- 12:16:43 Aylin Atilla, University of Calgary (she/her): Where would you rate this on the difficulty level of thoracoscopy?
- 12:17:02 Aylin Atilla, University of Calgary (she/her): And why did the group decide to proceed with aneroids and not cellophane for clinical cases?
- 12:17:05 Janet Grimes: There's been a lot of chat on the listserv about whether there are any additional venous branches entering the shunt in the chest, have you identified any branches entering on thoracoscopy?
- 12:17:09 Lindsay St. Germaine: Im so impressed. I drop the key EVERY time in open surgery! 12:17:28 chick weisse: is it easy to visualize the intervertebral and intercostal veins entering the azygous cranial and caudal to the shunt?
- 12:17:42 Janice Buback: Glad to hear I'm not the only one that has a few drops!
- 12:18:14 Michelle Waschak Bluepearl Columbia, SC: Did you have pre-operative CT angiography on the clnical case.
- 12:18:15 Alex Fox-Alvarez-UF (he/him/his): In clinical cases, we have tied a "leash" of suture to the ring and key because.... there will be drops:)
- 12:19:01 Alex Fox-Alvarez-UF (he/him/his): It worked pretty well. We struggled to depress the key in the ring with the pediatric sized instruments. So ended up pulling one port and using the tips of a carmalt to set the key
- 12:20:22 Jaron Naiman : how do you mitigate beam hardening artifact on post op CTA to allow evaluation of shunt flow??
- 12:20:40 Distance Vet Med Eric : Swoon

- 12:21:32 SVSTS Stream : Our radiology team uses a CT algorithm to minimize metallic artifact . IDK now reliable it is?
- 12:31:08 Maria Fahie : Are people using more CRI's (ketamine? Fentanyl?) instead of inhalants intraop to reduce hypotension with shunt cases?
- 12:33:37 Michelle Waschak Bluepearl Columbia, SC: Did I miss this was a Neutrophilia or neutropenia associated with poor outcome?
- 12:33:52 Alex Fox-Alvarez-UF (he/him/his): LOVE THIS!!! Awesome work Mandy!
- 12:34:00 Karen Tobias : Great talk!!
- 12:34:08 Judith Bertran, UF Surg. Onc (she/her/hers): Great talk!!
- 12:34:13 Bryden J. Stanley: Can you post the link to the iBook again?!
- 12:35:10 Mark Oppenheimer: Thanks for link. Helpful for residents
- 12:36:26 Michelle Waschak Bluepearl Columbia, SC: Thank you Mandy
- 12:36:45 Joseph Palamara: Yes I do not see the link either. Thank you Mandy!
- 12:38:01 Mandy Wallace-- UGA: Hi! Here is the link for the iBook download:
- https://books.apple.com/us/book/extrahepatic-portosystemic-shunts/id1532443414
- 12:38:30 Michelle Waschak Bluepearl Columbia, SC: Thank you again
- 12:38:45 Mandy Wallace-- UGA: Let me know if you have any difficult downloading it. Thank you for your interest in it! It has been really useful for our students and residents.
- 12:39:20 Joseph Palamara: Thank you!
- 12:46:49 Distance Vet Med Eric : #teamleftgastric
- 12:47:23 Alex Fox-Alvarez-UF (he/him/his): ^^^haha, radiologist approved ^^^
- 12:52:34 SVSTS Stream: This is super interesting! If anyone has a slower connection/lag issues, here is the direct link where you can watch the angios. https://youtu.be/qx03UDg8udk
- 12:52:48 SVSTS Stream: (and the rest of today's session)
- 12:53:25 Janet Grimes: I think we need t-shirts... #leftgastricistoblame
- 12:53:32 Distance Vet Med Eric : Caudal cava duplication!
- 12:55:59 Distance Vet Med Eric : For your right gastric interests:
- 12:59:02 Jaron Naiman : are people attenuating the azygos vein itself rather than the shunt prior to jointing the azygos when doing intrathoracic attenuation?
- 13:05:47 Steven Baird : If CTA is suspicious for portal atresia/hypoplasia, is intra-operative mesenteric angiography the reasonable next step? Any other options?
- 13:06:51 Karen Tobias: I think that's the study that needs to be performed: how many dogs with no portal vein on CTA actually have no visible one with portogram during temporary PSS occlusion.
- 13:07:32 Distance Vet Med Eric : Please do that.
- 13:08:27 Steven Baird : Are we happy that temporary occlusion and gross assessment if enough? I worry that if I'm not doing mesenteric angiography I'm still not 100%...
- 13:09:00 Karen Tobias : If I don't see a portal vein, I always attenuate and perform a portogram.
- 13:09:16 Janet Grimes: We could do an SVSTS multi-institutional study for this I've seen a few but not enough for a solo project. Would be good to get cases from multiple places and the collective brain!
- 13:09:24 Steven Baird : thanks
- 13:09:47 Mandy Wallace-- UGA : Agreed! That study would provide such important information for these cases!

- 13:09:49 Elizabeth Swanson : Same here. Had my first confirmed one a few weeks ago. First portogram in years!
- 13:12:19 Janet Grimes: That was a great talk Chick, the anatomy lesson was awesome!
- 13:12:21 roberthardie : Agreed...portography is the key for assessment.
- 13:12:26 Alex Fox-Alvarez-UF (he/him/his): We have had some as well this year
- 13:12:55 Cassie Lux: I love the anatomy, Chick! Thanks:)
- 13:13:12 Elizabeth Swanson: We definitely get a lot of CT reports that say no portal vein is seen, but the portal vein is present in surgery, especially after temporary occlusion of the shunt. (I always pass silk sutures or vascular loop to isolate the shunt before attenuation)
- 13:13:49 Karen Tobias : So the study would be: of dogs with no portal vasculature on CTA, how many have portal veins?
- 13:14:23 Janet Grimes: I would love to know that answer, Karen. I've been told by others they all have one and not to worry, but I'm sure there's the unicorn out there that doesn't actually have one but hopefully not that commonly!
- 13:14:23 Steven Baird: Lets bash it out now...
- 13:14:36 SVSTS Stream : Comparison of CTA and intra-op portography in dogs with portal aplasia diagnosed on CTA?
- 13:15:04 Karen Tobias : yes!
- 13:15:09 Michelle Waschak Bluepearl Columbia, SC: Would be interesting to compare the CTA to portography pre and post attenuation.
- 13:15:21 roberthardie : Just have to standardize the portography technique
- 13:15:27 Elizabeth Swanson: I'd add visual inspection. Most of mine that don't have portal vein on CT have a beautiful one clearly visible in surgery
- 13:15:39 Michelle Waschak Bluepearl Columbia, SC: yes
- 13:15:44 Karen Tobias : agreed!
- 13:16:19 Alex Fox-Alvarez-UF (he/him/his): My brain definitely gained a few wrinkles after that presentation!
- 13:16:32 Karen Tobias : That's age, Alex
- 13:17:58 Stan Veytsman: Anyone out there 3D printing these PSS cases prior to exploration?
- 13:18:12 Jaron Naiman: yes i 3d print any abnormal ases
- 13:18:18 Jaron Naiman: cases*
- 13:18:19 Karen Tobias : Chick, I propose you and Dr. White write a PSS anatomy review article for Vet Radiol Ultrasound...
- 13:18:26 Alex Fox-Alvarez-UF (he/him/his): I have not ligated the azygous vein in PAS shunts, I have only placed ameroid at the abnormal insertion in the Azygous. Mostly to offer a MIS approach. I am not brave enough to MIS an abdominal shunt, but the thorax is a bit easier to find the offending vessel.
- 13:18:32 Steven Baird : @Betty Swanson, I do the same (because we haven't a set-up like Chick's to make fluoroscopy easy!) I just worry that visualisation isn't enough. I think I need to overcome the portogram hassle-hurdle
- 13:18:46 Jaron Naiman: had a recent case of portoazygos that made 2 loops around the aorta and 3d print helped a lot for planning
- 13:18:59 Distance Vet Med Eric : Dr. Nelson is just too popular a guy, he has brainwashed people

- 13:20:35 Steven Baird : Please could Chick share his portogram technique? or highlight a relevant a paper?
- 13:20:54 Alex Fox-Alvarez-UF (he/him/his): Wow Jaron, that is awesome!
- 13:21:18 Alex Fox-Alvarez-UF (he/him/his): Do you print in house?
- 13:22:23 Jaron Naiman: yea i have a FDM printer that i use for anatomical models and a SLA printer that i use for orthopedic surgical guides. for shunts I will CT at initial visit and then print so I can show owner and explain what we will be doing at the time of surgery. Great for intern/resident education
- 13:23:26 Distance Vet Med Eric : Costs of materials and machine purchase built into the procedural costs or does the hospital eat that as a educational cost?
- 13:23:58 Deanna Worley: Thanks Chick for a great talk!!
- 13:25:34 Jaron Naiman : we have different levels of 3d printing fees based on materials and 3d modeling time but will also eat costs on some cases for educational models
- 13:30:45 SVSTS Stream: I would definitely be interested in a talk on setting up a clinical 3d printing lab in the future, Jaron!
- 13:31:55 Jaron Naiman: I would be happy to contribute
- 13:42:21 Alex Fox-Alvarez-UF (he/him/his): What a creature!
- 13:45:04 Robert Waddell: Wow
- 13:51:20 Joseph Palamara: Interested to know if anyone is using a CUSA to access these intrahepatic vessels?
- 13:56:11 Robert Waddell : We do yes
- 13:59:07 Deanna Worley: Chick what is your experience with using TACE to downstage the size of liver tumors neoadjuvantly and then being able to later resect a smaller tumor at a later date?
- 14:03:01 Judith Bertran, UF Surg. Onc (she/her/hers): This is very interesting. I just had a case that you could suspect it started on the last division and through portal communications made it to the central division only affecting quadrate lobe but not the right medial, likely because of the common central portal vein
- 14:05:02 Robert Waddell : tv
- 14:05:15 Joseph Palamara : Thanks Chick! Great talk
- 14:05:18 Karen Tobias : Fascinating, Chick!!
- 14:05:31 Janet Grimes : Great talks Karen and Chick! I have learned so much about shunts today!
- 14:05:52 Alex Fox-Alvarez-UF (he/him/his): Awesome talks today everyone!! Thank you so much!
- 14:06:12 Kristian Ash: Great talks! Thank you!
- 14:07:02 Bryden J. Stanley: I am totally in awe of you guys. Makes upper airways look easy!
- 14:07:50 Joseph Palamara: Yes thank you, too Karen!
- 14:08:28 Aylin Atilla, University of Calgary (she/her): Really great talks and discussion! Thank you all!
- 14:08:42 Cassie Lux: Thanks for the great presentations Karen and Chick!!
- 14:08:58 SVSTS Stream: One more Pictionary for keeps following Q&A.:)
- 14:09:31 Michelle Waschak Bluepearl Columbia, SC: Thanks to all speakers today. Great talks and humbling.

- 14:09:36 Antoine BERNARDÉ : Million thanks Chick! this is level 10 while I still remain at level 2:what a gap!
- 14:11:21 Robert Waddell: no ques
- 14:11:39 Bubenik, Loretta: Thank you. Great talks
- 14:12:28 Janet Grimes: Great work today everyone, the keynotes and abstracts were awesome! Thanks Meredith and Medtronic for your sponsorship and thanks to Distance Vet Med for the IT work!
- 14:13:54 Rebecca Csomos: Nice talks Drs Tobias, Weisse and all!:)
- 14:14:57 Michelle Morgan-Colorado Springs: Thank you! Great information.
- 14:18:22 chick weisse : thanks everyone!
- 14:19:12 brittneycarson: Thanks Drs Tobias and Weisse!!
- 14:19:17 Ronan Mullins: thanks Karen and chick
- 14:20:52 Judith Bertran, UF Surg. Onc (she/her/hers): Thank you Karen and Chick!
- 14:22:29 Anderson, Meredith: Thank you all!
- 14:22:35 Joseph Palamara: thank you!
- 14:22:40 Karen Tobias: Thanks, Medtronic!!!
- 14:22:41 Bryden J. Stanley: FUN
- 14:22:41 brittneycarson: Thanks everybody!!
- 14:22:50 Steven Baird : see you all tomorrow!
- 14:22:53 Mandy Wallace-- UGA: Thanks for the great lectures today!!
- 14:22:57 Aylin Atilla, University of Calgary (she/her): Thanks all!
- 14:24:06 Rebecca Csomos: Thanks, Meredith:)