

Sawbones 460: Fournier's Gangrene

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Clint: Sawbones is a show about medical history, and nothing the hosts say should be taken as medical advice or opinion. It's for fun. Can't you just have fun for an hour and not try to diagnose your mystery boil? We think you've earned it. Just sit back, relax, and enjoy a moment of distraction from that weird growth. You're worth it.

[theme music plays]

Justin: Hello everybody and welcome to *Sawbones*, a marital tour of misguided medicine. I'm your co-host, Justin McElroy.

Sydnee: And I'm Sydnee McElroy.

Justin: And uh—

Sydnee: The cat is aggressively attacking my foot and licking—

Justin: Just like lick... lick... Is she like, scratching?

Sydnee: Well, she was just like, licking me and now she's like, eating me. Sorry. Okay. She has stopped.

Justin: Olive, stop ruining the show for everybody.

Sydnee: You can have my slipper. You can—Look, I cede my slipper to you.

Justin: There, good. Take the slipper.

Sydnee: Take the slipper.

Justin: Eat the slipper.

Sydnee: Take—Eat that there.

Justin: We have a pod—She doesn't even enjoy podcasting. Like she doesn't appreciate that we have to do that?

Sydnee: If you're part of this family... you have to enjoy podcasts. [laughs]

Justin: That's right. That's right. The one law.

Sydnee: Or at least respect podcasting.

Justin: Yeah, respect podcasting and don't lick your way through it.

Sydnee: Okay.

Justin: [burst out laughing]

Sydnee: Sorry, it really hurts. [laughs]

Justin: Okay.

Sydnee: She's biting the back of my calf.

Justin: Well, we've removed the cat from the room now. That is what it has come to.

Sydnee: Don't worry, her other cat friend is right out there with her. The two of them can play with each other.

Justin: Yeah.

Sydnee: And stop licking my leg. Okay, Justin.

Justin: Yes, Sydnee.

Sydnee: I was recently asked a question out in the real world.

Justin: Yeah.

Sydnee: Not the podcast world, the real world. And I...

Justin: We were recording a podcast at the time, it should be noted.

Sydnee: Actually we were. We were doing a live podcast episode.

But I was asked a question by someone afterwards that I didn't know the answer to. And then... And I thought, "I should look that up." And then I didn't look it up because I just forgot about it because a lot of other things happened.

And then one of our listeners emailed in, thank you Heather, with this same question and it reminded me, "I gotta look that up. I got to figure out the answer to this sort of odd question." So here is what it is. You may have seen, you know, we do ads in this country—

Justin: We do.

Sydnee: ... for prescription drugs on TV.

Justin: Just us and Australia.

Sydnee: Mm-hmm.

Justin: Right?

Sydnee: Is that what—I always forget if it's Australia or New Zealand. And I think we say it wrong fifty percent of the time.

Justin: It's Australia, I bet you anything.

Sydnee: Anyway, sorry about that to everyone from Australia and New Zealand if I've offended you by just—by getting confused. You're both great and we love you.

Justin: Both great. One's bigger. One's smaller. Who's counting?

Sydnee: I don't know.

Justin: That's what I say.

Sydnee: I'd love to go to both.

Justin: Yeah.

Sydnee: Love to go to both. There you go.

So anyway, I decided to research a question that derives from one of these ads. And in these ads for medications, it's not uncommon for them to like, show people happy. Like, they've taken this medicine and their lives are so much better and they're like... They're living their best life now, right?

But then they list like a whole bunch of really horrible side effects really quickly, right?

Justin: Right. It's always like they're riding a bike and then you're kind of like, "May cause death."

Sydnee: Yes, exactly.

Justin: [side effect ad guy voice] "May cause seizure and heart attack."

Sydnee: Well, some people had noticed a particularly strange one in a commercial for a medication called Jardiance. Jardiance, a diabetes medication, also has some effects on your kidneys and your, you know, blood pressure probably and things like that.

Justin: I think Jardiance is a bad name. All these names are just made-up nonsense anyway. Jardiance? That sounds like you're trying to get an audience with somebody named Jardy.

Sydnee: Jardiance to me, sounds like the parasite giardia—

Justin: Yeah!

Sydnee: ... which gives you terrible diarrhea. And so...

Justin: Or the peppers from Chicago. The giar [sic] they... they have. It's kinda like that too.

Sydnee: I don't know what those are called. Anyway. Giardinos?

Justin: Mm... You know, the peppers.

Sydnee: So... I don't know. I don't—I'm not...

Justin: [Struggles to pronounce "giardiniera"] Giar... Giardianeria [sic]... Giar... Giardianeria.... Giardiniera. Giardiniera!

Sydnee: Okay. We're going to get emails about that now. Okay. Jardiance—

Justin: Just as long as we don't get jars of it, 'cause I don't like pickled stuff.

Sydnee: [laughs] Jardiance, one of the side effects that they list is that it can cause a life-threatening infection of your perineum.

Justin: That is your... May I say taint?

Sydnee: Yes.

Justin: Taint.

Sydnee: Well, I knew you would. And the question to me was, "Why just that?" Like—

Justin: Why just that? Why just—maybe more pressingly, why just there?

Sydnee: Why just there? Why is that? Well, no, it has... I mean, there are a lot of other side effects possible that they list. But like, why specifically would it cause an infection of that part of your body as opposed to any other part of your body? What is it about this medicine you take that would make that become infected?

And what do you mean life threat—like a serious infection of—

Justin: Define life-threatening!

Sydnee: ... of like, that area of my body. And so a lot of people I think had that question like, [scared voice] "W-Why?" 'Cause that sounds really scary.

Justin: Yeah.

Sydnee: And I didn't know the answer. So anyway, I'm going to tell you the answer, don't worry, by the end of this episode.

Justin: Okay.

Sydnee: But I wanted to... I'm dangling that over your head. You have to hang in there. And by the way, if you want to play along at home, write down why you think Jardiance would cause an infection specifically of your perineum.

Justin: Yeah.

Sydnee: Any guesses? Because I didn't... I didn't have one.

Justin: Just e-mail it to Syd right now.

Sydnee: [laughs] Anyway, and I will tell you by the end of the episode what the answer is.

Justin: Sawbones@maximumfun.org, just send in your guesses.

Sydnee: And don't look it up. I'm going to tell you.

Justin: Yeah.

Sydnee: I'm gonna tell. Don't look it up.

Justin: Don't cheat yourself.

Sydnee: So anyway, I thought this would be a good time to talk about infections of this part of the body. Specifically what we usually call Fournier's Gangrene.

So that's what our episode will be about today, Fournier's Gangrene and why could Jardiance—and there other medicines like it that also have this, by the way, Jardiance isn't the only one, that class can do this—why?

I once helped care for a patient with Fournier's Gangrene. It's not incredibly common. It's... So I can only remember one case that I was involved in. 'Cause as a family doctor this is not something you would usually manage because as we'll get into it's really a surgical issue.

Justin: Okay.

Sydnee: And I don't do surgery. However, I was a medical student at the time, so you get to rotate through everything. So I was helping care for a patient who had this really terrible condition.

And it is something that you don't ever forget if you have helped somebody with, because it's so impactful. So who was Fournier?

Justin: I'unno.

Sydnee: And why did he want his name to be on a kind of gangrene? I think that's always an interesting question.

Justin: 'Cause he's a nasty dog.

Sydnee: [laughs]

Justin: That one's easy. I know.

Sydnee: He's not really. This is going to be weird for you. He's not really.

Justin: He's not a nasty dog?

Sydnee: Not a nasty dog. Or I dunno. For the time, actually, for the time he probably was considered a nasty dog.

Justin: Yeah.

Sydnee: And I began to uncover another truth as I researched this that maybe Fournier's Gangrene should never have been named for Fournier. Maybe Fournier wasn't the first to—

Justin: Maybe we were already—

Sydnee: ... talk about this—

Justin: ... already into it?

Sydnee: ... gangrene. And maybe that it was somebody else's gangrene first. And he robbed them of the opportunity.

Justin: [scandalized] He stole the gangrene from them?!

Sydnee: He stole the gang grief from them.

Justin: Ugh!

Sydnee: Not intentionally, perhaps. But anyway. So let's talk about gangrenous infections of the perineum, scrotum—

Justin: [sarcastic] Let's!

Sydnee: ... and general genital area.

Justin: [sarcastic] Yes! Let's!

Sydnee: Fournier's Gangrene is the name we use for basically any necrotizing infection of the groin area. And when I say necrotizing infection, I mean like it kills tissue.

Justin: Cells dying.

Sydnee: Yes.

Justin: Yes. Sorry, tissue.

Sydnee: Kills stuff.

Justin: Tissue dies.

Sydnee: You may have heard of necrotizing fasciitis or nec fasc, some people abbreviate it. And it's what—if you've ever... If you've ever seen, like the news reports of [newscaster voice] “a flesh-eating bacteria!”

Justin: That's necrotizing fasciitis.

Sydnee: That's what we're talking about. So it... Same idea. It's a couple different types of bacteria, usually. This is one we usually don't blame on one specific bug. It's what we call a polymicrobial—

Justin: Ooh!

Sydnee: ... infection.

Justin: That's interesting.

Sydnee: Meaning multiple different microbes get involved. They have like a party. And it's a synergistic effect that can cause pretty severe tissue damage and destruction really quickly too.

That's one of the hallmarks of these necrotizing conditions is that they can progress really fast.

So recognizing them and responding to them quickly is absolutely imperative because the treatment is going to be cutting a lot of stuff away. And the faster you respond to it, the less stuff you have to cut.

Justin: Okay.

Sydnee: The bacteria that can cause it, you can see some like, general skin stuff like strep and staph. And then some other things that cause gangrene more classically, like clostridium is one that causes gas gangrene a lot. So you can see like a bunch of these bugs in there.

It usually arises because there's been some trauma or surgery or something that somehow the flesh has been damaged there, right? Either intentionally, because you cut it for a surgery, or unintentionally from a trauma.

There are definitely some risk factors. It's something that we used to only associate really with men and—Because—And it would like, even...

I actually had the impression that Fournier's Gangrene specifically, was about like, people with scrotums. Like that you had to... it had to infect the scrotum. But actually that entire groin area—

Justin: All of—

Sydnee: ... if it is infected. So like it's gender—there is no gender specific—

Justin: There's no gender to the taint.

Sydnee: ... thing. That's true, Justin.

Justin: Beautiful.

Sydnee: [laughs]

Justin: Man.

Sydnee: Every—[laughs]

Justin: Poetry really is everywhere.

Sydnee: 'Everybody has a taint' is like a book that people who are really... Like the book-banning people would make up and pretend like we were teaching kindergarteners or something.

Don't you feel like that's a book that they would invent and pretend like, "Look at this. This is the future the liberals want! Everybody has a taint!"

Justin: [laughs]

Sydnee: If that is a book, I'd buy it. But anyway, so it's not... We tend to associate it with the male gender, but it's not necessarily. It's any infection of that region of the perineum and specifically the groin area.

So whatever you got down there, if it gets infected in this way, it can be Fournier's Gangrene. It can occur in younger people, although we typically associate it with older age as a risk factor.

Alcohol use is definitely a risk factor, especially people who have alcohol use disorder. Diabetes is a risk factor. Immunosuppression of course increases your risk of lots of different things. Malnourishment tends to be a risk factor.

The treatment always involves surgery. That's the hallmark of it. Any sort of... If the tissue's dead, we generally have to get rid of it.

And if you cut away the infected part, it should stop spreading and you can stop it. Yes, we use antibiotics. But antibiotics alone are not going to treat a necrotizing infection. You got to have surgical, what we call debridement.

Justin: Get rid of the dead stuff, right?

Sydnee: Yes. Debridement means cutting stuff away that you... that will either inhibit healing or is causing damage.

So you can also like, debride a wound, if it's just got like, little bits of dead tissue around the edges that not necessarily are spreading, but like are going to inhibit healing, so that you've got a clean wound base that will encourage healing.

So that's... We debride.

Back in 1883, Dr. Jean Alfred Fournier was the first one to—that we think, that we thought was the first one—to bring this to our attention. And Dr. Fournier was actually a, initially, dermatologist, in Paris, France.

But he went on to become a venereologist.

Justin: A venereologist.

Sydnee: As in venereal disease.

Justin: Studying... Wow. You have to be a very specific sort of person. Maybe even a nasty dog, I mean.

Sydnee: And a syphilologist.

Justin: A syphilologist?

Sydnee: A Syphilis... specialist.

Justin: Is there a lot of these specialists in specific diseases? Because I don't feel like we've talked about this a lot. Is there like a—

Sydnee: They're used to be.

Justin: ... chlamideologist?

Sydnee: Not now. I mean now you wouldn't... You wouldn't be a syphilologist, right? You would... If you are an infectious disease specialist, syphilis would be within your wheelhouse. Although I—Part of it, too, is that like, we didn't fully understand all these diseases.

Justin: Mm-hmm.

Sydnee: So you can see where syphilis specifically causes a lot of skin manifestations. There's a lot of symptoms that are evident on the skin.

Justin: Mm-hmm.

Sydnee: So you can see where a dermatologist would start to specialize in this, because it's in there, it's on the skin.

Justin: Right.

Sydnee: As time has worn on and we understand these things much better, you don't necessarily—I mean, sure, a dermatologist could diagnose it, but also, you know, an infectious disease doc, a family doc, an OBGYN, a lot of us—an internal medicine doc, don't forget you guys.

A lot of us could diagnose syphilis or venereal disease. What we would usually call a sexually transmitted infection, STI.

But back then—

Justin: It was STD in my day.

Sydnee: ... it could be your whole thing.

It was STD in my day.

Sydnee: It was STD. Now it's STI.

Justin: Now if I wander around saying I got an STD, the local teens are like “This seems okay to me. I don't think there's any problems there, Mr. McElroy.” And then another one's like, “You don't mean STI, do you? Because we all hate those.”

And then another teen is like, “No cap.” And then I leave.

Sydnee: And what [laughs]—I don't think—

Justin: And then they start telling me to do the Griddy—

Sydnee: I don't think I don't think you know how to use, “no cap.”

Justin: They tell me—They start telling me to do the—No, it's... It's “no cap” that they hate STIs.

Sydnee: Oh okay. Well, that's probably true.

Justin: And then they asked me to do... do the Griddy? Hit the Griddy? I think? I believe, is a dance that is popular now.

Sydnee: I have no idea what that means.

Justin: I don't know either.

Sydnee: You're making me feel so old.

Justin: I know, I feel old.

Sydnee: And what you might mean is you have a SYD, because my phone corrects Syd, S-Y-D, which a lot of people will call me, to STD.

Justin: Mm.

Sydnee: Quite frequently.

Justin: Yeah.

Sydnee: Anyway, he—So, he studied under a Dr. Ricord, who was like... He was sort of an iconoclast in the venereal disease world.

Justin: Yeah.

Sydnee: Because he was one of the first people to say gonorrhea and syphilis are two different diseases.

And as we know, that was a—we've talked about this on the show before—this was a big point of contention in the world of venereologists.

Which is, "Are gonorrhea and syphilis just the same disease but different like, times in the course of the disease," right?

Justin: Mm-hmm.

Sydnee: Like it looks different ways throughout its progression.

Or are they two different things completely? And therefore would need two different ways of treating and they can be transmitted differently or whatever, right? So he was one of the first ones to say, "There are two different diseases."

And everybody was like, "Boo!" And then Dr. Fournier was like, "I agree with him!" And everybody was like, "Boo!"

Justin: [laughs]

Sydnee: And then eventually we were like, "You guys were right."

So anyway, Fournier followed in his footsteps. Because he studied under him he also studied syphilis. That was his major area of focus.

And he got some... He did a lot of... Like, a lot of work in that area. Like there's a lot of our understanding of syphilis that came from the work of these doctors who studied it early on.

Justin: Okay.

Sydnee: And he got some stuff named after him in the syphilis world.

Justin: Nice.

Sydnee: There's something called Fournier's Sign.

Justin: That is one of the... My... The probably my least favorite part of the entire Disney resort is Syphilis World.

Sydnee: [laughs]

Justin: I wish they would tear it down, honestly. I don't see who it's helping. The drinks are disgusting.

Sydnee: [laughs]

Justin: If I can I... It is... It is... No love lost there, okay.

Sydnee: So this is the one thing you and DeSantis agree on, is Syphilis World—

Justin: The one thing DeSantis and I agree on, is shut down Syphilis World. Chapek wanted to expand it, but I... Classic Chapek.

Sydnee: [laughs] So congenital syphilis, which means if you acquire syphilis while you were in utero and you were born with syphilis, it can lead to something called Fournier's Sign, which are these scars in your mouth.

Justin: Mm-hmm.

Sydnee: And then there's some Fournier's Tibia, which is when you get this, like, thickening and bowing—again, this is from congenital, syphilis at birth—of the tibia.

So he got some other stuff named after him other than the gangrene that we're talking about.

And Fournier, actually, he followed Ricord so closely, like he worked with him and studied under him and, like, followed in his footsteps so much that he actually married his daughter.

Justin: Really?

Sydnee: I just think that's an interesting side note.

Justin: It really is.

Sydnee: Like he studied under him, married his daughter and went on to carry on his legacy of venereal diseases.

Justin: That's beautiful. Beautiful.

Sydnee: He would also connect syphilis with, like neurological things, that it could cause. Which again at the time, nobody knew what—You can't see the syphilis spirochete yet, right?

Justin: Right, because there's not—

Sydnee: The little, teeny thing.

Justin: Not enough magnification.

Sydnee: So nobody knows what it is, and so the idea that there is something that causes these skin things and also this thing on your genitals and also these neurological symptoms, was a pretty wild assertion.

But he said that this thing called tabes dorsalis, which is the term we use for this slow degeneration of the nerves in the spinal cord that can cause a bunch of different neurological symptoms.

When he said that, like “This is from syphilis.” All the neurologists of the time were like, “What?! No!”

Justin: “How could you?!”

Sydnee: Like these... these people were really mad at each other. Like, when you would say something that someone didn't agree with, it was like...

Justin: A big deal.

Sydnee: It was a huge deal. And like Charcot, who we've talked about before, Dr. Charcot—who was the leading neurologist, like THE neurologist of the time period and who a bunch of stuff is named after Charcot—was like, [Charcot voice] “This is a travesty.”

Justin: [laughs]

Sydnee: That's—

Justin: [As Dr. Charcot] “Take it from me, popular Batman villain Sharko!”

Sydnee: [laughs] But he was like, “I am the neurologist and I know if it's a neuro—if syphilis can cause neurological issues. How dare you?”

Justin: [As Dr. Charcot] “I'm Charcot!”

Sydnee: [laughs] And they would get really mad and then they would, like, make fun of each other and like, write papers and things to deride each other. And like, you know, make little snarky comments at conferences and be like, [snobby voice] “Well, that sounds like a dermatologist.”

Justin: Ahh!

Sydnee: Like you know, and things like that about each other. So anyway, scientists can be mean. So—

Justin: [laughs hard]

Sydnee: That's my whole point, is that—

Justin: Especially, I mean, Charcot? I expect Charcot to be mean.

Sydnee: Sometimes we—And I say this as a scientist, this is not me throwing shade on scientists 'cause I am... I consider myself one.

Although I will tell you that I've been told that, “I'm sorry, you're an MD, that's not a scientist.” [laughs]

Justin: Wow!

Sydnee: I have been told that.

Justin: I guess gatekeeping isn't just for Charcot.

Sydnee: Which I mean... I get—No, I feel it 'cause like, research isn't my thing and I generally am more of like a, “Oh, no, I don't want to study it. I just want to. Just let me do it and see what happens.”

And that is like the antithesis of the scientific method, right?

Justin: I gotcha.

Sydnee: The scientific method is not, "Do it and see what happens."

It's like, "Do it in a very regulated fashion and get IRB approval."

And I don't want to write anything up. I just want to do it.

Justin: No.

Sydnee: Anyway, so I mean I get it. But... But yeah, and when you get really locked into an area of study and you know it so well, when someone comes in to rock your scientific world, it can be really jarring.

Justin: Mm-hmm.

Sydnee: And back then we didn't have all the answers and everybody wanted to be the one to find the answer and get their name on the thing.

Justin: Mm-hmm.

Sydnee: Even now, you see these kinds of battles. So...

Justin: Everyone wants a legacy.

Sydnee: So anyway, this is who Fournier is.

Justin: What is a legacy? It's a rash on a taint [laughing] that you never get to see.

Sydnee: So now you know who Fournier is.

Justin: [snorting and laughing]

Sydnee: But in 1883, he's going to tell us about a new condition. And he's going to slap his name on there.

Justin: [still laughing]

Sydnee: And I'm going to give Justin a chance to laugh.

Justin: [continues laughing]

Sydnee: And then I'm going to tell [laughing you about Fournier's Gangrene—

Justin: [still laughing]

Sydnee: ... after we go to the billing department.

Justin: [laughing] Slap your name right on that taint, partner! [laughs harder]

Sydnee: [exasperated] Let's go...

[ad break]

Justin: Okay, Syd, I'm doing better now. [laughs]

Sydnee: Are you ready?

Justin: Yeah, I'd stored up like 16 minutes of not laughing about... [laughs]
Okay, I'm back on top!

Sydnee: So as you may imagine, because Fournier was a venereologist and a syphilologist, he spent a lot of time, you know, examining people's genitals. That was definitely a big piece of what he would do.

And as a result, he came across these conditions that he compiled into a series of five case reports. He actually... he was the doctor for four of these and then one was something he gathered from another doc.

But in these cases, the patients developed a really serious gangrene, meaning like the death of a bunch of tissue in the perineum and the region around it, and the reason was unclear.

He thought it was related to, maybe like, some sort of systemic disease. Maybe this is something that happens with diabetes. He thought maybe syphilis did this.

Justin: Mm-hmm.

Sydnee: Which you know, of course he did.

Justin: Yep.

Sydnee: He was a syphilologist.

Justin: Yep.

Sydnee: It's sort of like that—

Justin: When all you got is a...

Sydnee: I wrote a new one for this.

Justin: Oh, what is it? Whaddaya got?

Sydnee: When all you've got is a syphilologist, everything looks like a spirochete.

Justin: [snorts] Uh, three people who are listening just like are up off the—

Sydnee: They just fell out of their chairs.

Justin: ... off their seats, like losing it, like "Yes! Get it on a T-shirt! Make at least three of them! Well, four, you'll want one. And then..."

Sydnee: [laughs] I'd say it's more than—I know our audience. More than three of you appreciated that joke. More than three of you.

Justin: But they turned it off when I was laughing so much about taints.

Sydnee: You should—

Justin: So it's just the three that are left.

Sydnee: You should e-mail Justin and tell him how much you appreciated my joke about...

Justin: Oh, thanks Syd, but they don't have—I only give `em your e-mail address, they don't have mine. [laughs]

Sydnee: So this series of case reports that he wrote, without like a defined- He basically said it's idiopathic, meaning we don't know why.

But he wrote this case report and said, "Here is this condition. We don't know exactly what causes it, but we know that it is really serious and you have to respond really quickly and it can be fatal."

The five cases that he had studied were all men, so he had linked it to, you know, possibly just being something men could get. And because he was the one who published it—

And he was like, well-known he was... he had renown, right?

Justin: Right.

Sydnee: So it was a big deal when he published something. A lot of people noticed it. A lot of people read it. He was a member of medical societies. All that kind of stuff that would draw it to widespread attention.

And so the condition became known as Fournier's Gangrene.

Justin: Perfect. Nice.

Sydnee: The specific form of idiopathic gangrene that, we don't know what causes it, but we know it's a big deal when it happens.

Justin: Got it.

Sydnee: However, as often happens, history that is written... sometimes only tells us a piece of the story.

Justin: Right.

Sydnee: And when we go back and search more, we find other pieces of the story that weren't told.

Justin: Mm-hmm.

Sydnee: Because maybe the people who were responsible for them didn't have quite the same status and standing as Dr. Fournier.

So this was not the first time someone ever wrote about what we call Fournier's Gangrene. There were some brief mentions. Back in 1848, there was a Dr. Hebler, who had wrote up this whole case report of something that he [laughs] referred to as "scrotal fire."

Justin: [horrified] Scrotal fire? Woof.

Sydnee: Which you would think that would have caught on.

Justin: Wha—At least as a band name.

Sydnee: [laughs] You can go way back, and we've talked about the medieval Arab physician Ibn Sina, who wrote many medical texts, sort of followed the like, Hippocratic tradition, and then expanded upon that.

And wrote a lot of medical texts that expanded our understanding of, you know, all of medicine at the time.

And he wrote a description that also matches what we think is Fournier's Gangrene. "Ulcers that occur in this region quickly become violent because these organs allow the corruption to spread rapidly.

"This is because these organs are lacking in air and are exposed to heat and humidity and are in close proximity to the waste passages."

Justin: Uh, you know where those are.

Sydnee: Which are all three things.

Justin: I don't need to clarify that.

Sydnee: So he—And so he talked about, "The most dangerous ones are those that affect the muscle at the root of the penis and the anus, because they need adequate dryness.

"And this is very sensitive and painful, and it may become necessary to amputate the penis if it spreads."

Justin: Mm.

Sydnee: So it—He's writing about Fournier's Gangrene.

Justin: Right.

Sydnee: You know?

Justin: Just doesn't know, necessarily—

Sydnee: That is exactly—

Justin: That it's called that.

Sydnee: Yeah, well, I mean, it wouldn't have been because this is way before Fournier was born. Yeah.

Justin: Or that it will be called that, someday.

Sydnee: Yes. Someday, yeah. I doubt... I don't think... I don't think he could have foreseen that.

And then throughout the 1700s—again, this is all prior to 1883, when Fournier publishes his series of case reports—we have some other things. There's a Dr. Baurienne, who wrote of a man who was gored in the crotch by an ox.

Justin: Ooh!

Sydnee: And then after everything was repaired, developed this rapidly spreading severe infection.

There's another case report from the 1700s of a post-castration infection. An adult man had had to have a castration performed for, I believe there was a tumor, and afterwards he developed this rapidly spreading infection.

And that one appeared to come from nowhere, so they weren't sure what exactly went wrong here. The goring of the ox made a little more sense to people.

Justin: Mm.

Sydnee: And then what was interesting in a lot of these cases, by the way, is that as you read about them, they were using the same treatment for a lot of them, not necessarily surgery, but they were actually using Peruvian bark.

You would basically make like a tincture. You would soak the bark and then take the water and make a tincture out of it. And this was popular at the time. If you remember, we've talked about Peruvian bark before. Do you remember why?

Justin: No.

Sydnee: Because the bark contains quinine.

Justin: Oh. Oh!

Sydnee: So we've talked about this. This had been... Like we had figured out that there's something about this bark.

There is some property—and at the time we didn't necessarily know that it was the quinine—that made it very helpful with fevers, specifically intermittent fevers, which is what we called malaria.

You have the intermittent fevers, because malarial fevers tend to come and go in a cyclical fashion. And we've done whole episodes about malaria and Peruvian bark and quinine and all that.

But anyway because we had had so much success with Peruvian bark in the treatment of these intermittent fevers, that were malarial, we started using it for lots of other things.

And so Peruvian bark was used as a treatment in a lot of these cases, like just applying like these tinctures and you know, mixtures of Peruvian bark directly to the perineum to try to treat it.

And they also reported that it was successful, which... I don't know.

Justin: [skeptically] Mmm...

Sydnee: I always think that... Like, it doesn't... I don't know why quinine would help with this, right? I don't have any mechanism that tells me quinine would help with a polymicrobial bacterial infection that's destroying tissue. Surgery is the treatment for that.

But that was the common treatment. And so when you look through Peruvian bark literature of the time, you'll find these mentions of things that are probably Fournier's Gangrene.

Justin: I read Peruvian bark literature for the pictures, but uh...

Sydnee: [laughs] There were also a number of experiments at the time, we've talked about the Royal Society before, who were like thinkers and philosophers, scholars, scientists who did a lot of stuff.

They—Remember they one time like gave that dog intravenous alcohol to see what would happen?

Justin: Yeah, those guys knew how to party.

Sydnee: They were doing a lot of experiments with Peruvian bark to figure out what else it could do.

And they also were comparing it to other medicinal substances and putting it in with like, stuff that was rotten to see if it could stop or reverse putrefication.

There's like this whole series of like, they're going to put some Peruvian bark or I think chrysanthemum was another big popular thing to try.

Justin: Okay.

Sydnee: And you would put it in with a piece of... Here's a passage from it, "I've been able to sweeten several small pieces of putrid flesh."

Justin: [laughs]

Sydnee: "Beef." In parentheses, "(Beef)."

Justin: Just beef, folks. Calm down.

Sydnee: "By repeated effusions of a strong decoction of the bark, and I consequently observed that not only the corrupted smell was removed, but a firmness restored to the fibers."

So they would take pieces of rotten meat and put them in with substances and see if you could make it unrotten. [laughs]

Justin: [As Royal Society Member] "I've unrottened this meat. It's ready to eat."

Sydnee: [laughs]

Justin: [As Royal Society Member] "Enjoy! Enjoy this steak."

Sydnee: "Now you can eat the beef." [laughs] "Eat the beef."

And in a lot of these cases, if you read the medical applications, a lot of the tissue was also sloughed off.

Justin: Hate that. Man, I hate that word.

Sydnee: Even if they didn't know they were doing surgical debridement, they were removing dead stuff and that's probably what helped.

Justin: Sloughed is like one of the worst ones we've come up with, I think. Ugh.

Sydnee: The ultimate overlooked, I think, part of the history of Fournier's Gangrene comes from Robert Robertson. Who, again, you'd think you would remember that name. [laughs]

Justin: You'd think you would know better than to call your kid that, honestly, but here we are.

Sydnee: He was a naval surgeon, he was aboard the HMS Rainbow. And in 1777, he published a report. Again, this is before any of these articles we've talked about, except for Ibn Sina's.

But he published a case report of one of the sailors got this really terrible infection in the scrotum and penis and perineum. And you know, why was this not widely recognized?

Because—And again this would fit what we thought at the time about—once we learned about Fournier's Gangrene. This was an elderly, the elderly ship's butcher. He drank a lot of alcohol.

Justin: Mm-hmm.

Sydnee: So these are risk factors that we sort of associate with Fournier's Gangrene. And he came in with swelling of the penis and scrotum.

He had tied it to having had intercourse with someone 48 hours previously.

Justin: It's possible he wanted to—

Sydnee: Someone at port that he met briefly.

Justin: It's possible he just wanted to brag, though.

Sydnee: Well... Yeah. And I'm not gonna—This is a family show. I can't— This is—If this gives you a little clue, I cannot quote to you what Robert Robertson put in his medical paper [laughing] because it's too racy to say on *Sawbones*.

Justin: Yeah. Dig it... Dig it up, you nasty dogs. You can find it yourself.

Sydnee: He was quite explicit as to what exactly the patient said to him thought may have led...

Justin: [inhales sharply] Yeah. Woof.

Sydnee: ... to this condition. But anyway, he described in great detail how quickly it progressed and what everything looked like and where—what he tried to do to fix it.

And all of this was described in excruciating detail, I would say. [laughs] Explicit, excruciating detail. So this was published. And made like, no impact.

Justin: No one cared?

Sydnee: No, nobody really—I mean, I'm sure there were some people who read it and were, like, "Have you—[laughs] Have you read this?"

Justin: "Hey, listen, he uses some words in here. I'm not sure history's gonna look too kindly on this."

Sydnee: They're like—No, it's like explicit. It's like the kind of thing you would hide under your bed so your parents didn't find your reading.

Justin: Yeah, I know. But we're history right now and we said we can't read it. So, that's what I'm saying.

Sydnee: I just... I... Kids listen to our show and I don't want to repeat the things that this gruff old sailor said.

Justin: These kids are going wild, though. They're on their iPhones trying to find what this gruff old sailor said, Syd.

Sydnee: [laughs]

Justin: You know how hard it is to find kid—For kids to find objectionable material on the internet.

Sydnee: He engaged in private activities and he got—And I don't know that that necessarily had honestly anything to do—By the way, I would say that probably had nothing to do with the gangrene that developed.

I don't know why it would. He probably just got it. So it hadn't—It almost certainly had nothing to do with the sexual encounter. But that's what he had reported.

Justin: Gotcha. Gotcha.

Sydnee: And at the time, anything that involved the genitals, you would naturally ask questions about sexual encounters. Same for today. So, he was not part of a lot of these medical societies. He didn't have the standing that Fournier did.

And then the other thing that's really interesting is that, as I mentioned, Fournier did not tie any of this to some sort of sexual thing. I mean, yes, syphilis, venereal diseases, yes, these are tied.

But like, he didn't necessarily say that. He said it could come from diabetes. It could come from typhoid. It could come from lots of different things. We don't know. So his was a lot more sort of buttoned up.

Justin: Yeah.

Sydnee: Like a conservative. [laughs] Yes, and this was like, you know, taint rash for the common man.

Justin: Sure, I gotcha.

Sydnee: So nobody ever—

Justin: Liberate it!

Sydnee: [laughs]

Justin: Get it out there.

Sydnee: So Robertson didn't get to name it Robertson's Gangrene. Although he described in great detail, you know, a case of this.

Justin: He's like... Yeah, he's like... he's on it.

Sydnee: But we don't call it Robertson's Gangrene, we call it Fournier's Gangrene.

Justin: Yeah.

Sydnee: And it's funny because despite the fact that, like, it is probably that explicit nature that kept this—I mean this was not the kind of thing you were going to read in front of the Royal Society, right?

Justin: Mm-hmm.

Sydnee: Like you weren't... That just wasn't gonna happen.

Justin: Right.

Sydnee: Maybe privately, when they're at the pub, but not in front of like a conference.

Fournier would go on to become one of the early fathers of sexual education.

Justin: Okay.

Sydnee: Which is kind of wild.

So even though his was the more conservative approach and he got to name the gangrene after himself, he insisted that after studying all of these diseases, there's no way that we can successfully protect people.

Like help them prevent and treat and manage these kinds of illnesses by only educating doctors. We have to educate everybody. We have to teach everybody about safe sex.

Justin: Interesting.

Sydnee: Because everybody, not everybody, but a lot of people are going to have sex, so we have to educate the masses.

Justin: Sure.

Sydnee: And this was a wild idea at the time, and a lot of people thought he was a nasty dog for it.

Justin: [laughs]

Sydnee: He made a... He made a little booklet called *For Our Sons*.

Justin: *I Am Not a Nasty Dog: The Fournier Story*.

Sydnee: And you can find it out there, copies of the *For Our Sons*.

And now again, like, how about all of us? There's some of us daughters who would like some sex ed too, please.

Justin: And some just... just offspring.

Sydnee: Or like, everybody.

Justin: General offspring.

Sydnee: Yeah, general—All people, adults and kids. A lot of us. [laughs] Like we—Let's not just focus on adolescents and teenagers and young adults.

Justin: Everybody needs to hear about this.

Sydnee: There are a lot of adults who need more sex ed, let's just be honest about that.

So anyway, he was kind of known for his, you know, defense of sexual education. And kind of like destigmatizing talking about sex. Despite the fact that he was known as like, privately, kind of a conservative gentleman.

Like he would have these fancy dinner parties every weekend and host people, and it was all very like high society and bougie.

Justin: That's all very—

Sydnee: But he also was kind of a nasty dog.

Justin: That's all very interesting Sydnee, but I am on pins and needles over here because you haven't answered the actual question that you set out to answer.

Sydnee: You're right. So we know what Fournier's gangrene is. We know where it came from, who named it and how to treat it.

Justin: Mm-hmm.

Sydnee: What—Why in the world would Jardiance and the medicines in that same class, why would they cause it?

So, the way that these medications work, in part, is that the excess sugar in your bloodstream, you pee out. So the concentration of glucose, of sugar, in your urine goes up.

Justin: Okay.

Sydnee: So there's more... There's more sugar in your genital area, and bacteria love to eat sugar.

So by increasing the amount of sugar that is around your perineum [struggling not to laugh from discomfort] you make it more susceptible to bacterial infections.

Justin: Why are these people peeing on their taints? How is that happening?

Sydnee: Well, I mean, I think they're just getting pee all down there.

Justin: Just pee everywhere?

Sydnee: I think the risk is that if you get some pee... Okay, like Justin, do you wipe after you pee?

Justin: Absolutely.

Sydnee: So where does that pee go? Where do those drips go when you pull your pants—

Justin: No matter... No matter how you wiggle and dance, the last two drops end up in your pants. That's true, Sydnee.

Sydnee: And then... And then your pants get smashed right back up against...?

Justin: And my sweet, sweet pee gets right on my taint. God.

Sydnee: Yeah. And then—And then you imagine—

Justin: The answer was right there in front of me!

Sydnee: And you imagine for people with vaginas, your urethra is close to...

Justin: Of course!

Sydnee: It's much closer to everything down there. And so any kind of infection, any kind of bacteria in that area, is more likely to get spread around. That's why people with vaginas are more likely to get urinary tract infections.

Justin: I gotcha. I gotcha.

Sydnee: Right. So like, the answer is that it makes... [laughs] It makes you taint sweet. [laughs]

Justin: Sweet, sweet taint. That's how the episode ends. Thanks for listening.

Sydnee: And it's tasty to bacteria. [laughs]

Justin: Thanks for listening to our podcast.

Sydnee: I'm sorry.

Justin: Although, you may be regretting the choice now.

Sydnee: I'm sorry kids. I'm so sorry kids!

Justin: We— [laughs]

Sydnee: I'm sorry to parents and guardians of kids. I'm sorry. We got too—

Justin: We are very—

Sydnee: ... nasty.

Justin: We are very... We are very happy for you to join us. If you head on over to mcelroymerch.com, you can find a brand-new *Sawbones* challenge coin to celebrate our ten-year anniversary.

So if you would buy some of those, I think if you're a fan of the show it's a great... It's a great coin. It's just... I can't believe it. Ten years, Syd? Can you believe this?

Sydnee: No, I cannot believe that.

Justin: That's wild. So that is... That is out there right now. Yes, Syd?

Sydnee: I just want to say, after our xylazine episode, I had several veterinarians reach out to me, people with veterinary expertise, reach out to me to tell me about various reversal agents they use in veterinary medicine for xylazine.

Justin: Mm-hmm.

Sydnee: And I really appreciate—people sent me papers—it was super helpful. I have passed some of those along to researchers at our institution to see, “Is this something we could try? Some compassionate use trials for some of these medicines and stuff like that?”

Right now none of them are okay for us to use in humans, but just because we haven't done the research to prove it yet. But I think... I just really appreciated you reaching out with those kinds of things. I had looked into that and I wish I would have talked more about it.

But thank you. Some of the stuff you've sent me has been sent on to researchers at my institution to say, “Can we do this?”

Justin: [laughs] I have another request. If you find yourself with some free time the weekends of June 16th, June 23rd or June 30th, we would love if you would come see the show we did.

Syd and I directed the SpongeBob musical. It is, honestly, you're gonna have a blast. This show has great music. It's got great performances. And we worked really hard on it, so if you want to come—

Sydnee: The cast is just fantastic.

Justin: They're just so good. Wait 'til you see these kids.

Sydnee: We can't take the credit, it's the cast. They're just incredible.

Justin: I say, kids, they're all adults.

Sydnee: Yeah.

Justin: But it's like they're kids to me because I'm 40... two.

But the tickets are, like, 15 bucks for children, 18 bucks for adults. If you go to spongebobwv.com, you can get all the details and we hope to see you there.

That's going to do it for us. Until next time my name is Justin McElroy.

Sydnee: I'm Sydney McElroy.

Justin: And as always, don't drill a hole in your head.

[theme music plays]

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