Episode 38
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Revolutionary Gene Therapy for Alcoholism, Dementia Breakthroughs + Full Body Scans

Peter: [00:00:36] Hey, everybody. Welcome to the Bedside Matters podcast. It is the podcast that addresses the medical issues that impact every single one of us every single day. So hopefully we're going to give you the answers you're looking for. Why? So you can be more informed and also healthier. I'm one of your hosts, Peter Tilden. I'm joined by Dr. David Kipper. David, welcome.

Dr. Kipper: [00:00:53] Thanks, Peter. How are you doing?

Peter: [00:00:55] Doing well. Anna Vocino. How are you?

Anna: [00:00:57] I'm doing great. Thank you so much. Glad to be here.

Peter: [00:01:00] So, let's roll into this because we're doing this podcast while the hurricane is hitting.

Anna: [00:01:04] We don't know how long the record button will stay red. So let's do this. Today, we're going to have some updates on Alzheimer's/dementia, which, you know, there's some good and some bad. And then we are going to be diving into dopamine and some gene technology. Right? More CRISPR stuff we're going to talk about with dopamine?

Peter: [00:01:22] Absolutely. And then in This Just Happened, we've got gene therapy that may be useful, but more than useful, for alcoholism. And we have our caller today wants to know about something that celebrities are doing and whether we regular folks should be doing the same thing that they are health-wise. So let's dive into this.

Anna: [00:01:42] All right. The good, the bad, the ugly with dementia/Alzheimer's. We have some good news and some bad news. Is this correct, Doc?

Dr. Kipper: [00:01:49] That's correct. And let's start with the bad news.

Anna: [00:01:53] Okay. I was going to say that, yes.

Dr. Kipper: [00:01:55] For a few years now… This is a story about PPIs. These are these proton pump inhibitors that we use for too much acid. And for a few years we've been looking at data that's been talking about the negatives with PPI use over time that are associated with stroke and kidney disease, heart disease, and actually early death from all causes. This latest study links PPI use with dementia. And what they found was that people over 45 years old that were maintained on PPIs for over four years, 4.4 years to be exact, had a one third higher likelihood of developing dementia at an early age.

Anna: [00:02:40] Well, I have a dum-dum question. What's a proton pump inhibitor?

Dr. Kipper: [00:02:44] Well, that's not a dumb question. These are acid-producing problems and these proton pump inhibitors inhibit the acid production. And there are – this

will become clear in 2 seconds. There are several over-the-counter PPIs. And so you've heard of Prilosec? You've heard of Nexium? You've heard of Prevacid? These are the antacid protein pump inhibitors. It's a fine line between what's an antacid, what's a PPI. And just to make this more confusing, there are these histamine blockers, these H2 blockers. Now we're talking just about the proton pump inhibitors.

And the question is, why do they cause dementia? What is it in these over time that creates dementia? And the answer is we don't know. Is this a cause and effect? Is it an association? It appears to have some causal relationship. And what we think is that the PPIs we know inhibit B12 activity in the system, B12, that vitamin is absorbed in a certain part of the small intestine. And the theory is that with these proton pump inhibitors that the vitamin B12 is not getting into that area of the small intestine. And that's one theory. And we need B12 to be smart and to remember. So that may be one reason. And also, we know that these proton pump inhibitors can actually impair the metabolism of amyloid. And we've talked about amyloid on this show and how amyloid is directly related to Alzheimer's. And we think that it probably decreases the clearance of this amyloid in the brain. So have I confused you more? Have I given you any insight?

Anna: [00:04:34] Well, it made me think of the B12 thing? You know, it always seems like a bougie, sort of like, oh, celebs are getting B12 injections and IVs. But now, if we can't digest it, maybe you should be getting injections of B12, in case that's the thing, right? I don't know.

Dr. Kipper: [00:04:48] Well, that actually is a mechanism to counteract B12 deficiency. It's also, as we get older, our absorption site in the small intestines starts to fail. And, if you are taking B12 as an older person, you might consider getting this as a sublingual product, that it gets dissolved under the tongue. As opposed to going through the stomach, it gets broken down and really doesn't get there. So, yes, that's…

Peter: [00:05:17] Maybe can you take too much B12? Is B12, a kind of vitamin that pushes out, or is it the kind of vitamin that you can keep taking?

Dr. Kipper: [00:05:24] Both. I mean, you can take too much B12 and a lot of people do sort of O.D. on B12. And way too much B12, you can get some neurologic issues. Most people don't. But if you are taking B12, check with your doctor to make sure that you're not doing what Peter just asked. Are you taking too much? When do you take these proton pump inhibitors? Well, it's when you have too much acid. So people who have heartburn, GERD, which is gastroesophageal reflux, these are situations where the lower esophagus, which normally doesn't see acid, is now, because of a loosened sphincter, which is the door between the lower esophagus that empties into the stomach, the stomach is fine with acid. It's used to having acid. But if that acid goes north into the lower esophagus, you start getting some chemical changes in the lining and that creates the acid buildup and then the esophagus spasms. The acid moves even further north. That's heartburn. And if this goes on for a long period of time, you're going to degrade that tissue in the lower esophagus. In a severe case, this is called Barrett's esophagus. People may have heard of this. And this is where there's tremendous inflammatory changes in that lower esophagus. And this condition is associated with esophageal cancer. So it's an important issue.

Peter: [00:06:59] Hey, David, when you have an esophageal gas buildup, instead of in your stomach, is that because the gas buildup in the stomach is so tremendous that it rises to the esophagus? Or is there another reason that you're getting acid in the esophagus?

Dr. Kipper: [00:07:12] Again, Peter, a great question. It's not necessarily just the gas, but that sphincter, as we get older, starts to wear out a little bit. It can wear out with certain things we do to ourselves. Alcohol, cigarettes are things. And also genetically people get this because of genetics. And when that sphincter starts to become incompetent, then, as the stomach is digesting its food, that acid can go north. Also, positioning, if you lay down, you are going to be, by gravity, that acid is going to leak into the lower esophagus.

Anna: [00:07:48] A friend of mine has to sleep, he has to sleep sitting up and it just sounds terrible.

Peter: [00:07:52] He has to sleep sitting up?

Anna: [00:07:53] Yes. And a family member of mine has Barrett's and she just has to be extra careful because, if she eats in a certain way, she'll literally just projectile vomit because of the scar tissue in her esophagus. It's really very disturbing.

Dr. Kipper: [00:08:05] If you try to go to sleep in a 45 degree angle, good luck with that. You're going to slide down as soon as you fall asleep. So the idea is good, but it doesn't really work. The other thing that you need to be careful of is that if you have a big meal and your stomach really expands, that is going to push some of that acid up into the lower esophageal. And if you wait less than 3 hours after you have a meal before you go to sleep and lay down, you also increase your chances for pumping acid into the lower esophagus. So this is very common. So people that are using these for four years are people that, for all the reasons we've just mentioned, are getting more acid buildup in their lower esophagus. So heartburn is common. GERD is common. Barrett's, not so common. But if you have these conditions, everything that we just spoke about, you need to be careful. Limit the amount of these PPIs. And again, those just to refresh your memory on what those are, that's Prilosec, Nexium, Prevacid, they're great, but you can't take them for too long, too often. There are other ways to mitigate acid. There are just regular antacids. You can take Mylanta, which will coat. Carafate is another antacid. And then there are these histamine blockers, and the histamine blockers are Tagamet, Zantac and Pepcid. Those are okay.

Peter: [00:09:34] Do they work just as well as the others?

Dr. Kipper: [00:09:37] Again, Peter, a really smart question. They work well. The problem is that they take several hours before they start to work. So if you're having this meal and you know that you're going to start getting some acid reflux and you take one of these, you're still going to have some damage to the lower esophagus.

Peter: [00:09:55] Anna, you've got to combine this in some of your cookbooks. It's like Mylanta Parmesan chicken. So it's already being delivered while… Is that not amazing, right?

Anna: [00:10:04] I'm definitely going to do that.

Dr. Kipper: [00:10:06] And speaking of Parmesan, there are foods that increase the amount of acid in your system. Can you guys guess? Anna, I'm sure you can guess these, right?

Anna: [00:10:14] The nightshades for sure. The peppers and the tomatoes, yes.

Dr. Kipper: [00:10:18] Dairy, another one. A big one is the dairy and things like alcohol, which loosen the sphincter even more are dangerous.

Anna: [00:10:30] That's not the only sphincter it loosens.

Peter: [00:10:31] Wow. Watch yourself. Check, please.

Anna: [00:10:34] I'm sorry. He said "sphincter." What am I supposed to do, not make a joke?

Peter: [00:10:35] Table for two in the back, please.

Dr. Kipper: [00:10:39] There are medications that increase acid. Peter, you want to take a stab at these?

Peter: [00:10:44] The Ozempic family. [laughing] I don't know. I'm guessing…

Anna: [00:10:51] The Mycins? The Mycins!

Peter: [00:10:53] Mycins, come on down! The Mycins [humming, da, da, da, da, da,da]. I have no idea.

Dr. Kipper: [00:10:58] The non-steroidal anti-inflammatories. Motrin.

Peter: [00:11:01] That was my first guess.

Anna: [00:11:02] The drug I've abused the most in my life, Advil.

Dr. Kipper: [00:11:06] Yeah, and if you have these conditions, there's certain other medicines. The erectile dysfunction drugs open up that sphincter. So you may be opening up something else, but you're also inviting more acid.

Peter: [00:11:20] It's too many doors just slammed open for me. I just got really confused. How is that? What's happening? It's dealing with your stomach acid?

Dr. Kipper: [00:11:31] It's just increasing that opening of that sphincter between the lower esophageal…

Anna: [00:11:36] Let's just leave that right there, shall we?

Dr. Kipper: [00:11:39] So, Israel has done a lot of studies recently and cannabis is legal in Israel, so they're able to study these things pretty well. And what they found was that the behavioral problems with dementia and Alzheimer's, which are agitation, anger, outbursts, things that are very difficult to manage if you have a family member with dementia or Alzheimer's. They found that by giving cannabis in a 30 to 1 ratio of CBD to THC, that's the formula for that. And even as edibles, not smokables, is also something that has mitigated these behavioral problems with dementia.

Anna: [00:12:23] Wow. That's great.

Dr. Kipper: [00:12:24] We can't study this as well here in our country because cannabis is not federally sanctioned. There are states that actually allow this. But so the bad news is that don't stay on these PPIs for more than four years. Don't take big doses of these. Watch what you eat, watch what medicines you take. Go to bed 3 hours after your last big meal and try some of these other alternatives, like regular antacids and these H2 blockers.

[music]

Anna: [00:13:05] Moving on, let's talk about dopamine and more gene treatment. Now, I've been reading about these ion channels. Can you explain, first of all, what an ion channel is and how they shift them to help us with our dopamine?

Dr. Kipper: [00:13:18] This is a topic close to my heart. I love the brain chemistry issues and we know that neurotransmitters can orchestrate certain behaviors. We have two major families of transmitters. We have stimulating transmitters, those with the dopamine family. And then we have the calming transmitters. Those are the serotonin family of transmitters. And we're speaking now particularly about the dopamine variety. And we know that deficiencies, imbalances in dopamine, creates very specific behaviors. We all can have one. No matter what your imbalance is, we can all have problems with our sleep, anxiety, depression, focusing. All of this can come from either imbalance, but with dopamine, specifically, we know that to treat these, we have to supply more dopamine into the system. And by doing so you can with drugs like Adderall, you can increase your focus. With drugs like lithium that provoke a dopamine response, good for depression. We have specific drugs for agitation, which is the Lamictal and the Abilify medications. And for sleep, Seroquel works very well on these dopamine imbalanced transmitter issues.

At the University of Washington, they tried to understand which behaviors were differentiated based on these different ion channels. This is to answer your question, Anna. These ion channels are channels, highways, that deliver the neurotransmitters. So dopamine travels along these ion channels and they end up at certain receptors or areas in the brain that activate the dopamine system. What they found was that these ion channels, if you manipulate these with gene editing, you can increase the amount of dopamine that gets through these channels. And by doing that, you can actually eliminate the need for these, all these other drugs. Once you navigate by the channels, there are hundreds of channels, but they did isolate two different channels that were very specific for specific behaviors. One channel was related to motivation. Another ion channel, and it wasn't one channel, there was a collection of these channels that was related to improving learning. And they took these channels, they did some gene editing in order to deliver dopamine through these channels to these areas in the brain. And, lo and behold, people had better motivation when they hit one of these channels. And another one of these channel systems, people showed that they could learn easier, quicker.

Anna: [00:16:11] Are there any negative side effects? And where can we get this? I want to know.

Dr. Kipper: [00:16:16] So, the negative to gene editing in general is that once you edit these genes to create these changes, these are permanent changes. So although we know that we might put a little more dopamine into these ion channels, we don't know what else it's going to do. So right now, we're early into this. We know that we can do those things, but we're not really sure what those long-term effects are because we haven't been doing this very long.

Anna: [00:16:44] I'll be the guinea pig. I need to do more things and learn more things. And I would like it just to be constant.

Peter: [00:16:51] And, by the way, I think Anna is a great example of the ethical issues that we all have, like who gets it?

Anna: [00:16:56] I don't care. Put it in me.

Peter: [00:16:58] Like who gets it? Who pays for it?

Anna: [00:16:59] I want something to freeze my face and give me more motivation. That's what I want. And I don't want anybody to ask me any questions.

Peter: [00:17:05] You've still got months to the holiday season. Say it again.

Anna: [00:17:08] Tell Lauren on my Christmas list.

Peter: There you go.

Dr. Kipper: [00:17:10] If you look at this technology and we talk about gene editing a lot because every week there are more studies on how gene editing affects other behaviors and other diseases. But if you think about this by increasing the amount of dopamine, remember, dopamine is that feel-good transmitter, but dopamine is involved in a lot of other things. Dopamine is involved with all types of addiction disorders, eating behaviors, drugs, alcohol, behavioral addictions, all have a reference to dopamine. And it's the deficiency in the dopamine that creates this behavior. So if you can increase the amount of dopamine going into the brain in these very targeted areas, we're going to have some therapies that are going to be very interesting.

I've always been impressed how you could give Adderall, as an example, and you can increase somebody's focus. But people that have generalized dopamine deficiency syndromes, they don't just have focusing issues. Some people, instead of having that might also end up having bipolar disorders. They might have sleep disorders because of their deficiency in dopamine. They might have eating disorders, they have other behavioral issues. So we're just putting these pieces of this puzzle together to connect these behaviors with these different channels. So it's very exciting. We've opened up this dialog now about which channels go to which behaviors, and we've learned from gene editing how to do this. So this is not only happening, but it's really going to evolve into some very interesting therapies.

Anna: [00:18:53] Well, let me ask you this then, before we move on to the next thing. Friends of mine are really struggling with their teenage daughter going through, just got a bipolar 2 diagnosis. So when you have these kinds of mental health issues, until we have these ion channels and these new treatments ready, what do you suggest people do to get help? I just want to put that out there because sometimes people don't know if they're struggling right this moment what to do.

Dr. Kipper: [00:19:17] You find a doctor that's familiar with brain chemistry. Bipolar 2 is primarily a depressive expression of a bipolar illness. Bipolar I are the manic expressions of this. You can have depression in both I and 2, but bipolar 2 the bigger headline there is depression. So right now, there are medications that target the dopamine system that will help people with the depression if you're a bipolar 2, so you want somebody that's familiar

with neurochemistry, pharmacokinetics, pharmacology, that deals specifically with these transmitters. And doctors out there, psychiatrists, are well trained in this. And so the answer to your question simply is to find a good doctor that has experience with this. It's always a trial and error because every person, we're not just dopamine deficient or serotonin deficient, we are hybrids. So we have a mixture of these. But in a bipolar 2, that's a dopamine related problem and the depressive treatments for that, they're going to be defined in much better terms. We talked about psilocybin on this show. People that have a bipolar illness that's predominantly depression are responding to psilocybin. And those studies are going on in a few different centers. So that's my advice to your friend. Find a good doctor.

[music]

Peter: [00:22:07] In This Just Happened this week, we're talking about gene therapy and this time it's for alcoholism. And it looks like there's some interesting research being done in that area, right, David?

Dr. Kipper: [00:22:17] Yes, this is really fascinating, I think. Again, we're back to gene therapy and we're also back to dopamine, by the way. Oregon University is where these studies went on. They took macaque monkeys and they got them drunk. They gave these monkeys high doses of alcohol. And what they found was that monkeys had continued to drink and required more and more alcohol. The theory was, and the theory made sense to a lot of us that deal with addiction disorders, is that for some reason the dopamine was not registering. They weren't getting the same pleasurable effects. So what did they do? They drank more alcohol in order to keep those dopamine levels up. And what they found was that really these areas in the brain that receive the dopamine, they just basically became tolerant. They just weren't working as well. They weren't producing the amount of dopamine from their alcohol that someone that was a casual drinker was. So what they did was they did some gene editing on one gene that produced a protein called glial derived neurotrophic factor. It was just a specific protein. But what that protein does is it increases the synthesis of dopamine in the brain. So they attach this edited gene to a neutral virus. They injected it into the brain and they had two groups. They had a control group of monkeys that got the gene, the edited gene, and then the other half of the monkeys didn't get the gene.

Peter: [00:23:59] Don’t tell me. So the group that got the edited gene, when they said, “Anybody, last round?” They went, “We're good.” They were good, the monkeys. Unbelievable.

Dr. Kipper: [00:24:06] Pretty much. Not only “we're good,” but “we're good forever. We're good, we don't need any more alcohol.” Because what that did was that reestablished, if you will, of the dopamine in the reward center that it was high enough that they didn't need to keep drinking to get that dopamine, whereas those monkeys that didn't get that gene, they just kept drinking away.

Anna: That’s incredible.

Peter: [00:24:34] That is stunning. Not only did it make you disinterested, you don’t want it, but that it could be forever. That is wild.

Dr. Kipper: [00:24:41] And these gene editing specific trials really evolved out of trials for Parkinson's. And, Peter, you know Parkinson's. You studied Parkinson's.

Peter: [00:24:53] I did.

Dr. Kipper: [00:24:54] Parkinson's has movement disorders, right? Peter, you tell us how that works.

Peter: [00:24:57] That substantia nigra stops producing dopamine in the brain and they have to give you a precursor that turns, goes past the blood-brain barrier, to become dopamine, which is L-dopa, which was I guess that's late seventies, early eighties. But it's tough because the body wants to get it out as soon as possible so it doesn't last as long. And, again, just like you're saying, David, incrementally, the disease does not stop because we can't deliver a constant stream or get the substantia nigra producing again. So this is pretty wild.

Dr. Kipper: [00:25:30] And this is what it did. This is, again, they hook this, this gene that produces this protein that makes more dopamine attached it to a virus. And people with Parkinson's, their movement disorders improved. And think about this because most addictions are dependent upon the amount of dopamine.

Peter: [00:25:53] Oh, my God. Would that be amazing if this was the code that broke the addiction cycle for people? That would be stunning because the issue, how awful that issue is today. But, David, the application, you said Parkinson's. What else? Where else are we? Illnesses. I'm trying to think where else it can be injected.

Dr. Kipper: [00:26:12] Look at people that have ADD as an example. You give a young person in a classroom that's running all over that classroom, a stimulant, which is really dopamine and which makes no sense. I mean, why would you hype up somebody that's already hyperactive but they're hyperactive because they're deficient in their dopamine system. You give that same kid, Adderall, Dexedrine, Ritalin, one of these dopaminergic medicines, and they calm down. So it's the same theory. You now give them this protein that creates more dopamine in the brain and that goes away. That changes.

Peter: [00:26:51] We've got monkeys doing this now. How long do studies like this normally last before the FDA gets involved and there can be an approval? How big does this testing have to be and for how long?

Dr. Kipper: [00:27:00] If the FDA sees a drug that is showing great benefit, they speed these things along for approval. And, remember, these studies came out of trials with people with Parkinson's. And so there are human trials using these techniques. This particular technique is not so simplistic. It's a surgical procedure. They have to inject this into that area of the brain where those pathways go to the reward system. That's actually in the lower part of the brain stem. But these things now, they figured out the highways to do this. And, Anna, going back to the question in the last segment, your question was, well, what are the negatives here? One of the negatives is that we don't know the long-term effects because once you edit a gene and you get this good effect, what's going to happen ten years from now, five years from now, what other effects are going to be there? And you can't go back and reedit that gene. So there are ethical issues here that we have to consider.

[music]

Peter: [00:28:04] In this week's Hey, What About Me? We got a phone call about something that's been in the news a lot, and this person wanted to ask about it.

Caller: Hey, Dr. Kipper, I've been seeing in the social media, especially on the Twitter, the full body scans from a lot of celebrities. I guess it's they could see cancer or whatever it is, you know, like with its early development. And I'm wondering, like, is this something I should be looking into if I'm smart? Anyway, I appreciate the podcast, listen to it all the time.

Peter: There you go. And Kim Kardashian, I just saw the other day, Kim Kardashian was posting about full body scan.

Anna: [00:28:35] She just did a post.

Dr. Kipper: [00:28:39] So, something good from Kim Kardashian and, to our caller, you are smart. You asked a really important question because, since the pandemic, a lot of people put off their scanning and their health updates and cancer screenings and that's now turning around. We're starting to see a lot more people now that are doing these screening techniques. So we have a lot of things that will help screen for your health issues. We have CT scans, where we do full body CT scans. Kim Kardashian was referring to the full body MRIs. They're probably better. Problem is, they're awfully noisy in those machines. It's hard to get somebody to jump into an MRI machine to do their whole body, but they are more sensitive. They're expensive. Insurance doesn't cover them. And there are other preventative studies now that people can get, frankly, on the Internet. There's genetic testing. There are probably close to 100 companies now that are offering these gene analysis. I mean, it started with 23andMe, but now there are many companies out there that you give them a little bit of a swab and you will get back all of your genes and it'll tell you which genes are associated with diseases and which cancers. These are not really sensitive enough, these studies, and people are making a lot out of them. People are making a lot of money that own these companies, but we're not really getting enough information that, we as clinicians, can help people with. There are all these wearables. You can figure out how many steps you took and how many hours you slept, and you're wearing an aura ring. And as you hold that up…

Anna: [00:30:25] It's not a wedding ring. It's an aura ring.

Dr. Kipper: [00:30:28] Okay. So back to steps for just a second, because this was in the news recently.

Anna: [00:30:35] Oh, yes.

Dr. Kipper: [00:30:37] What's the minimum number of steps that will ensure good health?

Anna: [00:30:41] I'm going to refrain from answering because I heard this whole thing.

Peter: [00:30:46] God, I keep hearing that it changes, but this is steps a day, you know, when you do a workout each day? Oh, my gosh.

Anna: [00:30:53] The figure that was sold to us was 10,000 steps.

Peter: [00:30:57] Right. So, I'm thinking 2280.

Dr. Kipper: [00:31:00] Do you know how 10,000 steps came to be?

Anna: [00:31:04] I sure do.

Dr. Kipper: [00:31:05] Tell us. It's interesting.

Anna: [00:31:06] There was a Japanese company in the sixties wanting to pedal their pedometer. See what I did there. And so they came up with that number because it was a catchy number. And at the time, the Japanese were having a lot of illness and they thought if they, you know, got the people moving and you know what? I have the aura ring on. It works, like it's like it's like catnip for me, like tracking the stuff. But it turns out it's like there really was no tie. Right? I hope that's what you're going to say, because I've heard this on a couple of different podcasts now.

Dr. Kipper: [00:31:37] So that 10,000, you're absolutely right. It happened right around when the Olympics.

Anna: [00:31:42] The late sixties, right, when the Olympics were in Tokyo?

Dr. Kipper: [00:31:45] Yeah, that was a gimmick they were selling. Then they started looking at what this really was, and they were a little more sophisticated in these metrics. And then it became 7000 recent studies say that, if you do 4000 steps a day, you are putting yourself in good favor for your general health.

Peter: [00:32:03] Okay.

Dr. Kipper: [00:32:03] So there are all these different gimmicks now that we can use to monitor. We also have biomarkers, we have blood tests. You can find out what your prostatic enzymes are to see if you have prostate cancer. We have the hemoglobin A1C to see if you have pre-diabetes. We have rheumatologic markers, the ANA, and the rheumatoid factors. We have inflammatory markers, a sed rate, a homocysteine, a C-reactive protein. We have a lot of things now that are biomarkers and we have tumor markers. We have tumor markers that are related to not just prostate cancer, but colon cancer, pancreatic cancer, breast cancer. So there are a number of these biomarkers that we can use. What I found interesting, and I'm a big believer, by the way, in doing these preventative tests, the problem is, as we said, insurance companies are not jumping on board. The American College of Preventative Medicine is not so keen on these tests. And the reason…

Anna: [00:33:10] Why?

Dr. Kipper: [00:33:11] They make a good point is that these tests do have false positives, so they generate further tests, some of them being invasive.

Anna: [00:33:19] Like the CA-125 has a lot of false positives, right?

Dr. Kipper: [00:33:23] Yes.They increase anxiety. They're not always specific. However, what I have found personally in my practice is that by using these screening tests you might find an elevated, and this is I can give you several examples from my practice. You can find a biomarker for pancreatic cancer that's elevated and you put that person through a, and they're asymptomatic, and you put that person through an MRI of their pancreas. And I have found pancreatic cancer…

Anna: [00:33:58] Wow.

Dr. Kipper: [00:33:59] …In an asymptomatic patient that had an elevated CA19-9. Now that patient two days later was operated on. The pancreatic cancer was removed. That patient's alive.

Anna: [00:34:11] Incredible.

Dr. Kipper: [00:34:12] Patients that go in for these chest CTs and you find a lesion on a chest CT and that's a cancerous – if it's diagnosed as a cancerous lesion on a biopsy, you just take that little piece of lung out and that person's cured. And this is very common. We have a lot of these stories. We've also talked about AI on this show. So now what they're doing, let's just stick with the lung scan for a minute. This is a CT scan. It's low radiation exposure. It literally takes 5 minutes and you don't get naked. You don't get stuck with a needle. You just get into the scanner and 5 minutes later they can look at your lung tissue. And we can tell based on patterns of these nodules that we see that most of these are benign. Some may not be the location where they are, the shape of the nodule. Now what they're doing is that they're taking all these images and they're putting them into AI, and they're letting AI create this databank all over the world of what really is a suspicious lesion.

Anna: [00:35:17] So then basically the difference if they have this database, you can then trust that your doctor is not only going to look at it and give their expert opinion from their career, but then it's going to be run through this database which has aggregated everybody's information. So it's not just one guy's opinion. You're getting AI opinion, too, in a good way.

Dr. Kipper: [00:35:36] And they did an interesting study. I think we mentioned this recently on our show. They took radiologists in England, where in England where they're reading these scans and this is specific to mammography, but they're now doing these with everything and they measured the radiologists' opinions versus the AI opinions and they were the same.

Anna: [00:35:59] Wow.

Peter: [00:36:01] That's pretty cool. Or not?

Dr. Kipper: [00:36:03] Or not.

Peter: [00:36:04] You got to think about that for a second. Wow.

Dr. Kipper: [00:36:06] And I think as more time goes by, I think that we're going to accumulate a much bigger database. And with that, we're going to have much more sophistication in how we can do these preventative tests.

Anna: [00:36:20] I would say, too, you know, they're saying that, well, sometimes these blood tests and these exams can cause more anxieties, so just to be safe, let's do the lumpectomy; just to be safe, let's do the thing. Then they send it to pathology and it was benign. It's like maybe things like that could be prevented, you know, not just not just the finding of the bad things, but the looking at another thing. Oh, it's a lump, but it's not a bad

one. And we'll just keep an eye on it, that kind of thing. You know, you don't have to go through surgery.

Dr. Kipper: [00:36:45] We're not that cavalier about it. Meaning that if we found a lump, we would do a fine needle biopsy, which would just be taking a tiny little piece of tissue. And we know where it is because we can use imaging studies to localize where the biopsy is taken. But if you have somebody in your family that has a chronic illness, let's say you have diabetics in your family, let's say that you have people with strong family history for breast cancer, as a perfect example, or colon cancer or other chronic illnesses. I think these diagnostic preventative tests have great meaning.

Anna: [00:37:22] Do you think that these MRIs are better than traditional mammography?

Dr. Kipper: [00:37:27] The MRIs are one third of the equation. I think the best imaging for a breast is to do a breast MRI, a mammogram and a breast ultrasound. And that gives you the cleanest picture of what's going on in the breast.

Peter: [00:37:42] We're going to do a recap. But I was looking at the Kim Kardashian video to see if now it's a Kardashian MRI, if they've even taken over that.

Anna: It's a KMRI.

Peter: There's just not that much more left. So, let's do a recap.

Anna: [00:37:56] Let's do a recap. And this is very exciting. Now I want to go get a scan. So today we discussed PPIs and Alzheimer's and cannabis.

Dr. Kipper: [00:38:08] So people that have reflux disease, ulcer disease, hyper acidity for any reason, be careful with your PPIs. And those medicines shouldn't be taken more than four years. Use the lowest dose possible. And, by doing so, you're going to cut your dementia risk significantly. And the positive to that story that we did was the studies in Israel that showed that cannabis, CBD, 30 to 1 on the THC edibles are going to dramatically affect the negative behavioral issues, the anger, the emotional issues that we see with dementia.

Anna: [00:38:54] That's great. And then we talked about genes, more CRISPR stuff, more ion channels having to do with dopamine and then the cause and effect of that as it relates to alcoholism.

Dr. Kipper: [00:39:06] So we're learning how these specific behaviors that are related to these neurotransmitter imbalances, in this case, we were talking about dopamine. By manipulating these ion channels, we can create more with gene editing. We can create a better influx of dopamine into the system, into the exact target where that behavior manifests.

Peter: [00:39:30] Also, gene therapy, as you mentioned, just mentioned and alcohol, which is another more, more gene editing happening. And then of course, MRIs and the Kim Kardashian celebrity issue. David, get an MRI, don't get an MRI, get scans?

Dr. Kipper: [00:39:42] Speak to your doctor. And this is an individual issue. That's where I think this breaks down, is that if you do have a family history or you have a predisposition to certain illnesses, I think it is important that you do preventative tests. Again, this is my

opinion. The problems that might hold you back, or whether you will have this covered by your insurance company, your doctors can certainly advocate for you, by the way. If your insurance company says, no, Peter, you can't have that scan, your doctor can write a letter to your insurance company and say Peter needs a scan because three members of his family had this problem. So don't be too passive in this. Speak to your doctor. But where it is appropriate, I think you should pursue these.

Anna: [00:40:28] If you have a question for Dr. Kipper, and you just probably might after hearing what a fount of wisdom that he is, head on over to BedsideMatters.org. Pop your question over there and it just might get answered on the air by you know who.

Peter: [00:40:40] And since we talk about brain chemistry so much, you may want to check out Override, Dr. Kipper's book, which lets you take control, not only of your brain chemistry, understand it, but deal with your sabotaging behaviors. And, Anna – Anna Vocino – she's got a new website, which shows her recipe boxes, her sauces and spices, the cookbooks that are wonderful. AnnaVocino.com. And I just got two more. What sauces did I get now?

Anna: [00:41:04] Eat Happy Kitchen Sauces. You got the Marinara and the Arrabbiata Spicy.

Peter: [00:41:08] Oh, my gosh, I had the spicy last night. It was killer. It was great. Thank you, Anna. Thank you, Dr. Kipper. Thank you, Lorre Crimi, for producing the show. And thank you for listening to Bedside Matters. If you're sick and tired of being sick and tired, we're here to help. We offer new episodes every Monday. So follow us, like us and have a great week.

Announcer: [00:41:28] The information on Bedside Matters should not be understood or construed as medical or health advice. The information on Bedside Matters is not a substitute for medical or health advice from a professional who is aware of the facts and circumstances of your individual situation. Thank you for listening. If you enjoyed the show, please share it with your friends. We'll see you next time.