Academy of PHYSICAL MEDICINE

Transcript

387R- The Role of Ultrasound in the Causes of Back Pain with Andy Rowe

Steven Bruce 6:48

Good afternoon, and welcome to today's lunchtime learning with others. I've been thinking every time I say that it makes the show sound a bit like watch with mother. You might have to be a certain age to remember watch with mother, but you probably get the idea if I tell you that it involved things like Andy Pandy, Bill and Ben the flower pot men and muffin the mule. Well, today's flower pot men are myself and chiropractor, Andy Rowe, hopefully we're going to be a little bit more intelligible and educational than Bill and Ben were back in the day. I've asked Andy to come in because I was taken by his use of ultrasound scanning in clinic. Ultrasound was something that we considered in my own clinic many years ago, but back then, I realized that, you know, I was never going to be able to interpret a screen full of what looked like white noise to me. So I think it's gonna be fascinating to look at not just how the technology's moved on, but how use of ultrasound by somebody can help us in the handling of our own patients. So Andy, welcome to the academy. Thanks

Andy Rowe 7:43

for having me, Steven.

Steven Bruce 7:44

Let's have a little bit of background on you. You've been a cut you were a chiropractor for 38 years. You are a chiropractor. I'm

Andy Rowe 7:49

a chiropractor. I'm on the register and yeah, I graduated from ACC back in 1986

Steven Bruce 7:52

so you're a sonographer.

Andy Rowe 7:55

I am. I've got my sonography, my abdominal ultrasound certificate, so I don't sort of market myself as a sonographer. I'm a chiropractor who uses ultrasound as part of his diagnostic workup. So I don't do sonography as a standalone offering. It's part of my chiropractor work, part of my assessment of patients.

Steven Bruce 8:16

But now that you have effectively retired from clinical practice, I need you some locum work. Are you doing sonography for other people in clinics? Still? No, not even doing

Andy Rowe 8:25

that. No, I've always used it just as part of my practice, in the same way that a chiropractor or an osteopath might use X rays as part of their diagnostic workup. You wouldn't set yourself up as a radiographer and go taking x rays of people. My clinical insurance only insures me to use it as part of my chiropractic workout, and it's been, you know, hugely, hugely helpful,

Steven Bruce 8:49

right? I'm surprised immediately by the fact that your training was purely an abdominal ultrasound. So how long is that training?

Andy Rowe 8:58

Well, formally, a year to do your postgraduate certificate. But I've done old time training for a number of years, but I didn't get my certificate until the year 2020, so I wasn't able to get a form of qualifications. Very difficult to it was difficult years ago to get qualifications, but as training changed and the ACC down Bournemouth started to offer it, there are quite a few practitioners who use ultrasound in the musculoskeletal field. So that's, that's where 99.99% of practitioners have done their training. And you know, if people are watching this thinking, oh, I want to do that, I would really recommend they start off doing MSK training, because it's, it's not going to ruffle any feathers. It's not terribly controversial. Doing abdominal ultrasound outing clinical practice is controversial, and we'll probably talk about that a bit later. But if you want to go down the through, do some MSK ultrasound, because you're, you're going to get good experience. It's going to set you up nicely. To your abdominal train. I think I'm the only chiropractor that has an abdominal ultrasound certificate,

as far as I know. So it's pretty unusual, and that's both a good and a bad thing, because when you're unusual, then people think it's it can't be possible.

Steven Bruce 10:14

Yeah. And so when you say MSK ultrasound, is that to do a course in MSK ultrasound, does that mean you're going to cover the whole body. So you'd be able to identify tendons down there and ligaments up here, and

Andy Rowe 10:24

depending on how many modules you do, yes, absolutely, yeah. So you might be able to diagnose a muscle tear, or you might be able to diagnose, yeah, a tendinopathy. You might be able to diagnose an inflammatory arthropathy, yeah, MSK has got, I mean, you can even diagnose fractures with with ultrasound. I mean, it's really helpful. I mean, I, I used my machine here to diagnose a fifth metatarsal fracture on a patient that came in nice and easy. You know, she developed this lateral foot pain. We ran the scanner using a high frequency probe, different to this one along the the fifth metatarsal, and you could see a break in the in the cortex, and so like, well, you broken it, so you need to go and get an x ray. So MSK is really, really helpful. I never did my MSK certificate. I went straight into doing abdominal because that's really where my my passion is. But now, if people are interested, start with MSK, and if you can get yourself onto an Abdo, course, then that that's great. You're

Steven Bruce 11:24

obviously capable with MSK. If you can say, well, I'll have a look at your metatarsal and I can identify a fracture there. Yeah,

Andy Rowe 11:30

have a go. You know, it's great, yeah. Why not? So some things are much easier than than others. I mean, you know, if I said to the patient, yeah, well, we'll have a look at his metastasis, if you've broken it, and it's obvious to them. If it's broken, then it's obvious to me as well. So some some things are much easier than others, and we'll talk about that as we go along. Because ultrasound has its limitations. It's not very good at looking at picking up small things, big things, obvious things where there's contrast. It's really easy to use, and we can be more confident about what we're looking at, but when the findings are subtle and small, it's much less helpful.

Steven Bruce 12:11

Going back to your fracture, though, back in the day when I was training, one of the ways of identifying a fracture was to put therapeutic ultrasound through it, because if that, if that made you jump, that was supposed to be indicative that they supposedly,

Andy Rowe 12:25

yeah, I've never used therapeutic ultrasound, so I don't know, in the same way that tuning forks are meant to do the same thing as well. I have never, in my whole clinical practice, ever had a positive tuning fork test, particularly on spinal compression factors. And you know, the new graduates that have come to work for me have always said, oh, we'll use the tuning Forbes see if they've got a compression factor. It doesn't work. So in my experience, either I'm doing it wrong or it's its sensitivity is

Steven Bruce 12:53

low, I guess, tell the purpose of the question was, clearly, there is a difference between therapeutic ultrasound and scanning ultrasound. What? What is the difference?

Andy Rowe 13:02

I guess, the modality of where you are in the in the frequency range. I think therapeutic ultrasound is largely being chucked out the window. Has been, you know, its efficacy is very much in question. You know, 20 years ago. You know, in my earlier part of practice, I had lots of colleagues that used it as they're part of their therapy, and physiotherapists used it a lot in hospitals. Now you don't see therapeutic ultrasound Hardy at all, because really it's been shown to be not really

Steven Bruce 13:33

back on the show. You know the professor, retired professor now, but he was the, basically the UK's authority on ultrasound, because we had him on the show five, six years ago, and he was adamant, you know, all of the evidence for ultrasound is positive. It does work. Doesn't necessarily mean it's the best thing, but it does work. Well, it's just a fashion thing that we've got other stuff. Got lasers now we've got, yeah, I'm sure there

Andy Rowe 13:56

was a bit of that. And because I've never used it myself, you know, I'm not qualified to comment on this efficacy. I mean, I have a physiotherapy friend who I send people to with inflammatory problems. If I think that a course of some sort of electro anti inflammatory therapy would be useful, I think it can be really helpful, but the evidence, I think, is a bit iffy.

Steven Bruce 14:18

Yeah, well, interesting. Tim laughed at my ultrasound machine when he saw it, because it does exactly the same as all the other ultrasound machines. But mine is 25 years old, or something like that, and it doesn't look quite as snazzy as the modern like a Morris

Andy Rowe 14:30

Minor. It still drives

Steven Bruce 14:34

talking of snazzy modern stuff. This is a snazzy modern Well,

Andy Rowe 14:39

it's a sonic m turbo, which is an American machine, was made for the American military, and it's designed to be robust and simple to use a lot of ultrasound. Machines have loads of knobs and dials and buttons, and can make booting the the. It up and getting it set up take more time than one wants it to I want somebody that can just switch on and very quickly be having a look, because I like to use ultrasound a bit like a stethoscope in the well, let's have a quick listen. Let's have a quick look. And I use it literally as part of my my kit, and I don't send your I don't book people, particularly for a separate point for the ultrasound. I just do an ultrasound there and then if I think it's appropriate. And we'll talk about the reasons why we might do that in a minute. But this, this boots up really quickly. It's nice and simple to use. It's gone out of production. Has been superseded by a different model, but it's, yeah, it's been produced by the 10s of 1000s, so it's a bit like the Ford Mondeo of ultrasound scanners. Also, I didn't want something that would take up a lot of room in my practice. My practice is only modest size. I want to go to have it on a little trolley that I can just push away out of the way. And it's not dominating the whole of the three minutes. It's nice and small. Yeah, it's been very good. So if people are looking to to go for an ultrasound machine, then then something like this, I think for a clinician, like a chiropractor, an osteopath, I think is a good unit, but

Steven Bruce 16:16

it's a military standard machine, because my experience of military standard equipment, which is reasonably extensive or was, is that it's generally fairly robust, it doesn't make it reliable, but it's always 10 times more expensive than the civilian equivalent. What did yours cost when you bought it? Oh, that's

Andy Rowe 16:35

good question. I think it was about 15,000 pounds, 15 grand. Yeah, right, yeah.

Steven Bruce 16:40

So you and I were talking about returns on investment earlier on, you've got to scan a lot of people to get your 15 grand back, haven't

Andy Rowe 16:46

you completely and I think that's the the thing that you've always got to ask yourself is, you know, are you looking to make a return on it? Is it going to be profitable? I always did it just as part of the

deal. I never charged people for ultrasound scans, and if I felt someone needed it, I would suggest to them that we did it. I wouldn't say and by the way, we'll be charging you a fee for this. It was just part of what we did. No, I wouldn't scan every patient, but the ones I did scan I didn't charge for. And you know, if I was doing a repeat scan, I wouldn't want patients to feel that they were going to get charged a second time for an ultrasound scan. I just wanted to be a bit like a stethoscope, something we just use. It's just, and I think that's what's going to be the future at the moment. You know, most chiropractors, and I suppose, don't use diagnostic ultrasound. Most GPS don't use diagnostic ultrasound. But I think, and this creates a little bit of conflict that we'll talk about a little bit later. But my prediction is that GPS of the future, and maybe chiropractors nasty, but I hope so in the future, we'll be using systems like the butterfly ultrasound, which is a handheld probe, which you can plug into your your iPhone, and you can have a quick look. And it butterflies, a brand name. Butterflies, yeah, absolutely. Butterflies, brand name. And you will find GPS will be doing this in the future, chiropractors, osteopaths, physios will be using things like that. These are pocket sized things, and this will seem huge by comparison. And so one of the reasons that I was keen to talk about the work that I do is that I'm at the end of my career. I'm about to, you know, walk off, sort of stage left, and I want to raise it to, you know, my colleagues as this is what I've done. I've kind of nudged the door open and gone through it. And I will look at it a few ways in which it's been helpful. But you know, what I hope is that there'll be colleagues out there, chiropractors, osteopaths, who will sort of take the baton and run with it and develop it. And I hope that the chiropractic educators and osteopathic educators will see that it's such a fantastic tool, because you can look inside your patients, and as practitioners, you and I have spent our lives looking at our patients from the outside, but we haven't been able to look inside unless we've taken x ray and looked at this

Steven Bruce 19:09

cholera practice, of course, famously use a lot more X ray than osteopaths do. I mean osteo don't know of any osteopathic or X ray in their practice, where I know lots of chiropractors. Do you think this will take over from X

Andy Rowe 19:20

ray? I think there's a good argument for it, but I think one of the problems that that we have with abdominal ultrasound and using as part of the workup for back pain is that we start to see alternative explanations for why people have back pain. A lot of patients get told you have mechanical back pain, and the GP might say that, say go and see the physio or the Osteopath or the chiropractor. The chiropractor may say you've got mechanical back pain, but a lot of times, they don't say terribly well why that's the case. And once you start to look inside the patient, you can see clues sometimes as to why that might be the case. And of course. If you're seeing an explanation that is a visceral one, then that might make your treatment plan, your rationale for having a whole course of extended course of treatment sessions blown out the water. So I found that when I started to use diagnostic ultrasound, there were patients that I didn't treat because they needed some other therapy, or we could treat them, but we knew their problems were going to be recurrent, but at least we understood why hands on therapies may still have been the best treatment for them, but it may not be resolving the underlying problem, because there was no way of resolving the underlying problem. We could talk about some of those problems.

Steven Bruce 20:38

Well, in a bit, you've just hit on one of the areas which we will be talking about quite a lot this year, which is that of professional candor. And the reason we're going to be talking about professional candor is because that's what chiropractors have to cover in their CPD this year, as opposed to equality, diversity and inclusion, which was last year. And that whole business of explaining to patients what's wrong with them is an important part of that candor, isn't it, and owning up to when you can't treat

Andy Rowe 21:02

it. And I think the key thing that all US practitioners should be trying to do is explain to ourselves and to our patients why they've got the problem. We have to answer the why question. It's no good just saying you've got sacroiliac pain or you've got quadrated lumborum spasm. That's just the anatomical explanation the pain producing tissue, but what we should be trying to do is explain why that's happening. Now that might be the you know, something going on inside might be the reason. Now, you know, things like kidney stones are well known for giving back pain, but almost anything organic will kick off problems in the back now, they may kick off inflammatory changes in the sacroiliac joints, they may kick off spasm in the paraspinal muscles, but they will give back pain, and the patient will come in thinking they got a spinal problem because their back hurts. And us chiropractors and osteopaths often think that because the patient's got back pain, they've got a back problem, and they haven't always got a back problem, they've

Steven Bruce 22:05

got back pain. Yeah, but yeah, this is, this is clearly going to be useful. And I know, you know, we aren't going to be doing a demonstration of the machine in action, but we'll look at some imagery in a little while. I've had a couple of observations questions in already. Mraz has said that he's worked with Tim Watson, who I mentioned and has found himself that therapeutic ultrasound can be very useful in clinic, and I'm convinced it does work. I just think it's slightly out of fashion. I can't believe that all that evidence that Tim Watson found in his exhaustive search of the literature was was wrong. So we're not saying ultrasound doesn't work therapeutically. Lawrence wants to know how accurate, if that's the right word, ultrasound scanning is. He says he's referred patients in the past for ultrasound, and it's never failed to find hypoechoic areas suggesting damage.

Andy Rowe 22:51

Yeah, I think there are upsides and downsides to every form of imaging. You know, back in the old days, ice take X rays of patients spines, and we pick up all sorts of things which we thought might be relevant at the time, but clearly weren't you treat the patient if you were to re X ray them, and that's not always a good idea, you might well see see the same things on those x rays, so the patient's pain's gone. So it's irrelevant. There's loads of stuff you'll see on old sound scans, which can be irrelevant, and you have to use clinical judgment to decide whether it's relevant. We'll look at a picture, maybe of a gallium. So I don't know if people can see this picture, but you can see the gallbladder. Hey, the big black blob. So that's got bile in it. And you can see this little collection of it's either one stone or a collection of stones. It's not entirely clear. And you can see the characteristic shadow underneath. So ultrasound is really good at picking up things where there's a lot of contrast

and where the thing that we're looking at is of a reasonable size, you know, if it's, you know, a centimeter or two across it, it's nice and easy because it's white and it's, you know, it's a stone. So it's going to reflect the the elk sound waves back, back to the pro. You're going to get a good picture of it, and you're going to get a shadow. The shadow really helps to pick it up as well. If there wasn't a shadow there, and we just saw the white blobs, they'd probably have a polyp. In other words, it was a less dense structure, but this is clearly a gallstone. So the question then is, you know, is this relevant to the patient's back pain? It's reckoned that 80% of people that have gallstones don't have any symptoms at all. I think that quite a few patients with gallstones do get pain. Sometimes it's intermittent pain, and it's not always coming around, you know, under the breast area and around laterally. Often it's in the quadratus lumborum area, where you know us as practitioners, when we're getting our thumbs in there and feeling it, you know, we'll, we'll feel their muscular tension, and the patient feels it and it. A it's a back problem. But one might argue it's because they've got a gallstone there that maybe intermittently, is blocking the drainage of bile out of the gallbladder and making the gallbladder uncomfortable.

Steven Bruce 25:13

So just looking at that image, just to orientate ourselves on that there's a shadow and there's a narrow bit. So the narrow bit is where your this is

Andy Rowe 25:19

where the probe is. So this is the ultra probe. So this is a low frequency probe, because when we're doing ultrasound scanning, we have to get in deep. So remember, I recommended that people start off doing musculoskeletal scanning. That when you do MSK scanning, it's a smaller probe with that with a flat end, and it's a high frequency probe. Because when doing an MSK scan, you're to say you're scanning someone's finger. You're only going in a couple of millimeters. So so you can get a very, very good picture with a high frequency. The higher the frequency, the better the detail, but the but there's less penetration. So if we want to get inside the abdomen, we want more penetrate. Penetration. If think about whales talking to each other through the ocean. You know, that's a very deep, low frequency sound travels long way. This is the same thing. So this is up on either on the lower part of the rib cage or in the right eye predominant quadrant, looking through the gallbladder.

Steven Bruce 26:16

So we're looking AP, and you've given us a very clear snapshot there, which shows us an obvious blob in the middle, which you were saying, that you were telling us, is a gallstone. How easy is it to come up with clear pictures like that? Not that I'm suggesting we're all going to go and train as sonographers, but

Andy Rowe 26:31

Well, it depends what the problem is. So, you know, I think what's interesting is when you go in expecting one thing, and don't see it, and you find something else. So we can easily make assumptions about what's causing a patient's pain and do an image, but we may be completely

wrong. It may be the liver that's the problem. The person may have hepatitis, and we might see a very bright white liver, and we think, goodness me, you know, they've got a fatty liver. They may have a fatty liver and but that may because they eat too much and their body's storing calories as fat in the liver. It may be because they're an alcoholic and they're drinking and one of the great things I think about using abdominal ultrasound is that it's made me look at patients, I think, much more broadly and holistically, and it's enabled me to have conversations with patients about alcohol, because we're looking at their liver, and I'm saying your liver looks really fatty, and I'm having to ask them, How much do you drink? And then sometimes you can be surprised. You know what they come back with this kind of, know, the games up, and they have to talk about it,

Steven Bruce 27:45

because I presume you would have asked that question as part of your onboarding process. You're an initial case system I

Andy Rowe 27:51

would have done, but I'd gloss over it, because it's a little bit challenging, it's a bit uncomfortable and so, and also they lie, and people lie. I mean, yeah, absolutely so. But when you're looking at a fatty liver, you're forced to go down that route. And because I'm not someone that you know likes to make my patients feel uncomfortable, I'm in a situation where I'm looking at a fatty liver, you know, I always have them looking at the screen as well. They're looking at fatty liver, and we're kind of going, Oh, okay, well, let's have this conversation. And so that's really useful, and it's really helped me to explore that part of people's lives, which I didn't do very well before. So so it was like a route into talking about alcohol abuse or eating disorders or hepatitis. One time I scanned someone and she had a very fatty liver, and I asked her how much she drank, and she got very upset, and said, I don't drink anything at all, young man. And we went back over medical history, and of course, she had been on Tamoxifen, which makes the liver fatty, so I hadn't quite got myself up to speed enough. So there are lots of things that can make the liver fatty, including medications. So, but equally,

Steven Bruce 29:03

a response, I presume, was, well, okay, I'm just this a potential cause, what I'm saying on this scale, so now we need to find what the other cause

Andy Rowe 29:11

is. Fine. But you know, we when I was doing my training, I worked with a GP in Coventry, and I was asking her about fatty livers. And I was saying, Well, what causes all these fatty livers that we're looking at stage? Oh, they all drink. So, you know, it's we've got to be careful not to, not to jump into that and make that assumption. So

Steven Bruce 29:29

Darcy says, Your approach seems to very sound ethically that you don't charge extra for the ultrasound. And then I would add, you know, this seems like a very good way to open up conversations about wider aspects of health, other than just the MS case stuff, but 15,000 pounds is a hell of an investment, just so that you can have a conversation about how much someone drinks, isn't it? Is this a realistic option for the normal practitioner? I

Andy Rowe 29:53

think that's that's a very good question. I think that's hard to answer, and my hope was that. It would make me a better practitioner. And I think it, it's it did, and it certainly, it completely changed the way I looked at patients. I mean, I was a very standard, you know, mechanical chiropractor. I'd look at things, manipulate things, give rehab exercises, do some maintenance if there were good indications to do that. But I didn't think enough about, you know, answering the why question. And I think that's the the thing, one of the things that we should be doing is making sure that we're always asking ourselves, does my diagnosis answer why? And we can see on the slide that will come up next. You know, one of the things that we need to do is to examine patients abdomens and and I don't think as as professions, we're always very good at doing that. And, you know, I think when we assess our patients, you know, we can, we can look at them from the back, and we do that, and do our postural assessments, we do our orthopedic our neurological assessments, and so on. But we're not very good. And I would challenge my our audience today to audit their last 10 cases of back pain and see if on your records you've got any mention of abdominal palpation. And my prediction would be that many of us will not have any mention there of abdominal palpation we should have, but I think

Steven Bruce 31:21

that's fair. Well, I know certainly that I came out of college and I would have had no, no competence, no no confidence in this sort of examination at all. Unless

Andy Rowe 31:29

someone pushes us, pushes us to do it, we tend to fall out of the habit of doing it. And I was having a discussion with the GP about abdominal ultrasound. We can talk about that more later, slightly, slightly heated conversation, and she was asking, asking why I would use abdominal sound or someone with the back pain. And one of the clues, the first clue, I always think, is, you know, if the abdomens tender on the same side that they got back pain, it's a clue. And this is a picture of me with my detective gear on. You know, I'd like to think that I'm not just a therapist, but I'm trying to be a bit of a detective and answering the why question. And so as well as doing all you've got the patient light lying down on their back, and I've done a straight leg raise test, and I've done all the orthopedic stuff at that stage, I should always examine the the abdomen in my notes, should say, you know, abdomen non tender. And end of story, if there's no tenders, okay, that's fine. Just write it down. But if it's not saying that, then I probably haven't done it.

Steven Bruce 32:29

You started to answer the question I was about to ask, which is, you surely can't ultrasound every patient. So what are the indications which would make you want to do it? So abdominal tenderness on the same side is back

Andy Rowe 32:38

then absolutely. So we've talked about the the first, the first clue, and that's abdominal tendencies and and going back to the palpation there, one thing that I think is quite helpful is, when you're examining your patient's pelvis, and I'm sure you know, all of our audience do this. We've got our patients standing in front of us. We're seated. We're palpating the sacroiliac joints, doing the delay tests and so on, asking if it's if it's tender, let your fingers come up round the waist a little bit and just give a little bit of prodding with your fingertips and see if both sides are equally sensitive. And one of the things that I always think is quite funny is that female patients, if there is tenderness around the flank, just say it's the right flank. And I'm sticking my right fingers in there, they'll say, Oh, that's a bit uncomfortable. You know, the left side feels normal. And you know, to me, that's, that's, that's the start of my abdominal palpation. I've come at it from the back, but it's just quite a good way to introduce it to to your your routine male patients, when I do that, they'll tell me that's ticklish, and they won't admit that it's tender, because they're blokes. So I always think it's quite funny, because the so the right side of your of your waist is ticklish and the left side isn't like, okay, that's fine. And then we go on to the other tests. When they're supine, I'll then palpate the abdomen, and then we establish AR indeed tender on the right side of the abdomen. But the other clue, the second clue for our audience, and we'll see it on the slide here when it comes up in just a second, is, I think that on every patient that has back pain, I think we should do a urine test. They're really easy to do. They're cheap. And again, we don't charge patients for doing a urine test. I think you know, we should always do it. And if there's some microscopic hematuria that should give us a clue that there might be some sort of pathology, either a gyne pathology on a female patient, or a urinary tract pathology or prostate pathology in male patients.

Steven Bruce 34:38

So so your your your procedure as well. A patient arrives in your clinic, and they're immediately told, go into a urine test. Well, they come in to see you in your treatment room. You say, Here, have a stick go and we on this. Yeah.

Andy Rowe 34:48

So what happens? We do the case history, and then they'll, I'll give them a sample, and say, Could you just, you know, go and have a wee before you go and get changed, before I examine you. And. So they'll go and do that, and they're going to get changed. We get patient, patients change into gowns, and then they come back. By which time I've done the urine test, it's so quick. I know if there's blood there or not. You know? I know if there's nitrite there. I know if there's white blood cells or not. I mean, what's really, really embarrassing is if you haven't done this stuff, then after three visits, the patient comes back and says, you know, you know that back pain I had, I had a urinary infection, you know, I think that's our job to diagnose this stuff. And, you know, sadly, I think we're not as good enough doing that as we should be. And

Steven Bruce 35:29

it's more and more of a problem now, isn't it, because they're not going to see GPS, who might do that already? Yeah,

Andy Rowe 35:34

it's so easy to and I think given that lots of different things cause back pain, I think we should be doing your analysis on everybody. So yeah, the two clues for me that would make me think about doing an abdominal Ultra scan would be a tender abdomen on the same side that they've got their back pain and some microscopic hematuria. Yeah, interesting.

Steven Bruce 35:54

I just seen a question or an observation from Suzanne. She says non alcoholic fatty liver is increasingly common, and she says she's got t total patients with it. So one shouldn't assume it's alcohol based. And we were making the point, you shouldn't assume it sounds but it's one of the

Andy Rowe 36:07

lifestyle and that's why diabetes is on the increase. It's all linked up with the same thing. So and again, that's something that it's really helpful to bit to use ultrasound and see that someone's liver is fatty and it's and it is non alcoholic, you know, liver disease, because, again, it helps us to talk about patients nutrition and exercise. And I think we're in a great position to give people advice about, you know, local, low carbohydrate diets, intermittent fasting, exercise and, you know, and managing people's health from that point of view, because the GPS, I don't have the chance to

Steven Bruce 36:42

do that. But also I also myself, I'm a little bit hesitant to give people dietary advice, because there are so many conflicting opinions out in the in the wider world. But GPS, I'm sure, will be the first to admit that they don't get any nutritional training. They just tell you what the general opinion is about nutrition. Can I take you back to gallstones? Peter said, well, since gallstones, can call cause right shoulder pain would, does that mean you would scan every right every shoulder pain? Patient, yes, Yeah, correct. Okay, that was a simple answer. Well, I

Andy Rowe 37:15

would do a focus scan. Well, if they shoulder shoulder problems, give you arm pain, okay, shoulder problems. When people come in to the chiropractor or the Osteopath and say, My shoulder hurts, you know, if they've got a shoulder problem, they'll, they'll, they'll grasp their upper arm. But sometimes people come to us and say, My shoulder hurts and and, you know, point at their their upper trap straight away, you think they've probably got a neck problem. But if they say My shoulder hurts, and they point at their scapula or tip of the scapula, then I'll think you've probably got lost it.

So it depends what the patient means by the shoulder, but if they've got pain down here, it's not going to be brushing

Steven Bruce 37:56

your microphone. Sorry. We'll get back. Okay. We of questions coming in for this. We don't have an awful lot of time left. Rach says, if someone had abdominal tenderness and you didn't have an ultrasound, would you always refer to a GP or

Andy Rowe 38:12

no, I'd say, well, let's have a look at next week and see if it's still tender, because it might not be. You know, you've got to take all these, these findings in context. And you know, just because we find, you know, a problem one day, you know, if we're seeing them a week later or two weeks later, you know, reassess and see if it's still like that. But I think you've got a patient with back pain, and you've got just say they've got right upper quadrant tenderness, and it's there every time you're seeing them. I think you've always got to ask yourself the question, Why have they got right our predominant quadrant tenderness? And if you if you can't ultrasound them, and you know 99.99% of us can't, then here's something to flag up, particularly if they're going yellow and run well, we

Steven Bruce 38:54

probably wouldn't need an ultrasound to say, I need to come back to the practicalities of this, whether these questions coming in Sarah, I mean, she's probably asking a question that everybody wants there is, have you found any unexpected things like pregnancies or stuff like this that? No,

Andy Rowe 39:10

I always, again, my insurance doesn't cover me for pregnancy scanning, so I always ask patients, is there any chance that you might be pregnant? Because if there is, I will not scan their lower abdomen. The

Steven Bruce 39:24

question is, have you found some that were unexpected? Let's say a patient didn't know. What are the surprises you've had as a sonographer? Well,

Andy Rowe 39:31

lots of dynamic gallstones, fatty livers, renal cell carcinomas, abdominal aortic aneurysms, enlarged prostates. One thing that, you know, I've come across a few times is massively enlarged bladders on male patients. I had one patient, I was feeling his abdomen, and it felt like I was squishing a balloon. And, you know, I came right up, you know, to the, I think, even above the umbilicus, and I was still feeling this. It was just. Like, well, that's a bit weird. So we talked about scanning him. I scanned him.

His bladder was huge. I mean, literally, his bladder was was coming right up here, so he had a massively enlarged bladder. So anytime we get an abnormality, I just refer them, you know, I don't, I don't sort of try and say, you know why they've got that, and what should be done about it's not my place to treat that. So I wrote to the GP and said, said, what we'd found, and he did get referred to Urology. They found that he had a massively enlarged bladder, and it came with him. It was, it was two things we think. One was that it went back to childhood about not wanting to go to the loo certain times. So it was a sort of deep seated psychological issue. But also he had enlarged prostate, which made it harder for him to empty his bladder. So he had a very large bladder. Now, one of the things about a really enlarged bladder, and it was really great that we did scan him, was that when you get bladder enlargement, that you often get pockets within the bladder wall where urine will will collect. And you know, urine is fine as long as it flows and goes away, but if urine stays in an area, it basically becomes carcinogenic. So so they did a cystoscopy, went up and had look in this bladder, looked in this little pocket and he had bladder cancer in there. And I've had three guys with very large bladders, all of whom I've sent all three of them have bladder cancer, and that's picked up just because I palpated them and scanned them, you wouldn't have known. Did they

Steven Bruce 41:36

get successful treatment as a result? Yeah, yeah, absolutely, yeah. It can be pretty grateful. Then you should pay for your ultrasound, machine. Shouldn't

Andy Rowe 41:42

bladder cancer picked up like that, is very treatable. That's the nice thing. They essentially do a sort of chemo washout. And so, yeah, those patients were really grateful. And so you talk about payback, you know, my hope was that the payback is that they talk about me. And so it's a form of advertising. I mean, you know, the best advertising that we can all hope to do is that people are really grateful for the help that we all give them. And I hope that this is, you know, an additional help. And, you know, one of the problems that the biggest problem I faced, was that, you know, I was the only person in the country doing this, and so my local GPS were very, kind of skeptical about it, because they didn't like me telling them what I found, you know, I think, and they never admitted to it. I think they felt I was undermining them somehow. And so I was always fairly happy that I get a steady stream of GP referrals that, you know, I'm the, you know, I'm the guy, you know, these, the GPS and patients, to me, all very ego driven. Once I started to do this and write to patient to GPS about, you know, enlarged bladders or gallstones, whatever. My My GP referral numbers went to 00, so if you want to trash your your GP referral practice, start doing abdominal ultrasound scanning, because it will kill it and and that. So that's the price of the price you pay, because you're challenging the system. And, you know, I the conversation I had with with some GPS was, you're a chiropractor, you know, why don't you just treat the patients a bit more? You know, just manipulate them a bit more. I'm thinking, I can't believe I'm hearing this, but I think it's just, it's the hierarchy of medical practice. You know, we're somewhere down among the bottom feeders, as far as they're concerned, as far as they're concerned, and and so, so you do this stuff at your peril. And, yeah, I thought going down this route was going to be absolutely game changing in a positive way for my practice. And it's curious, and it was in some ways, but it killed it in terms of referrals from the GPS. It's

Steven Bruce 43:45

curious, though, isn't it, because the GPS option, if patient comes to them and they've got back pain, they don't have many options to deal with that, other than analgesics of some sort. But if they want an ultrasound scan, that patient has to get an appointment, Trundle off to hospital. I presume the GP has to specify what it is they're looking for, whereas you're able to say, well, I'll just have a wiggle around and see what I can find. You're gonna be a bit targeted by the tenderness I imagine. Well, that's the

Andy Rowe 44:08

interesting point. The there was a paper produced by Camilla Anderson in the family the Annals of Family Medicine. And it's if you're considering going down this route, it's really worth reading it because she was looking at GPs who were doing ultrasound, abdominal ultrasound, at the point of care, so what's called POCUS ultrasound, point of care ultrasound. And she went did some research about GPS, I think, in a Scandinavian country that were starting to do this. And, yeah, it had its pluses and it had its minuses. She, thinks. Kamala Anderson felt that doing a focus scan was a good idea. So for instance, answering the question, Does the patient have gallstones? Yes or no, you can do that very quickly. I've been tripped over a couple of times by doing focus scans. So looking at one area and not doing the whole of the abdomen and missing. Something else.

Steven Bruce 45:00

So you could do the whole of the abdomen. And, well,

Andy Rowe 45:03

it's like all these things, you know, when, when I first started doing X rays of people, when I was a new graduate, you know, 38 years ago, it would take me forever to do an x ray and to interpret it. But, you know, after doing it for, you know, loads of people, and after a few years, I could do that in a fraction of the time. So I can, I can do an abdominal outstanding scan pretty quickly, only because I've done 1500 abdominal sound scans now, but, but when I was first doing it, you know, I was anxious and nervous and slow and going over the ground a few times. I want to

Steven Bruce 45:34

get through these questions, but one of the things I'd be interested to know before I move on to those, is, what's what's your advice? What's the way ahead with this? I mean, most practitioners are going to bulk at 15,000 or whatever the cost of a machine now is for their own practice. Is there? Can you see some way where there can be a big practice? Could have one person who's got the skills to do this, and they can be shared around the treatment rooms or group, group practice, somewhere where people going to scan. Obviously, I'm

Andy Rowe 46:05

sure that's possible. I mean, I think I'd say I would recommend doing MSK to start with, so you get up to speed with with, you know how to use a scanner, and you know, you'll be doing stuff, I think, on

the whole a bit more quickly. It depends on what you're looking at. How many you know, a shoulder scans can take a little bit take a little bit longer, but, yeah, start with MSK scanning. Would you charge for it? I don't know. I think that's a really hard thing. I mean, you know, I'm so non confrontational, I couldn't even bear to think of asking patients for money for it. So you could do a kind of Robin Hood type thing where you say, right? We bought the scanner. We think we're going to do X number of scans per year. I was doing about 300 scans a year, you know. How can we spread that? Spread that cost, that cost, you know, over all of our patients, you might just put your fees up. You know, say we're going to put our fees up, but we're all our treatment fees are going to go up two pounds, and that's going to give us an x increase in revenue, and that's going to pay for our scanner. That's what I would do. I think, I don't know. I think the problem with with charging for a thing is that the practitioners tempted to try and push it, and the patients are tempted to resist it, and the money comes into the decision making process, and really it shouldn't, you know, basically, I think if someone you know needs a scan, they should have it. Or if someone, if you think, Well, do they need a scan? But you know, it's a bit sensitive in their right upper quadrant, should we scan them anyway? You know, yes. But if they're thinking, Well, I don't want to spend 70 quid, they might say, I don't want that. And you know, you haven't answered your question. So I would always say it should be in our, in our sort of repertoire of, you know, instruments, you know, we don't charge people to take their blood pressure. We don't charge people to, you know, listen to their heart or listen to their carotid arteries. We don't charge people to, you know, a urine test. The fee is the fee is the fee. You know, some people, you know, they're getting a whole load of stuff, and other people gave it less. No one's complained, right?

Steven Bruce 48:06

Yeah, let me go back to the questions here. Pam was asking about communication with with patients, and whether that becomes complicated when you're you pick up something on here, which potentially could be quite serious, large bladder, but you've said that that's invariably in your experience, so far, been associated with bladder cancer or cirrhosis of the liver. Perhaps. Is that a question? Is that a communication aspect that you have to treat very carefully? I

Andy Rowe 48:30

think you do have to treat it sensitively, but I think that you know you can use phrases which show that you're concerned, but you're doing the right things. Like I would always say to a patient I'd scanned and if I saw their bladder as an artist, say that we do need to find out why it's enlarged and make sure that the bladder is okay. Because you know, when enlarged bladder, you get urinary retention that sometimes is an issue. So it does need to be looked at, and I just leave it. That's the way it that's the way it is that the patient will get probably slightly stressed about that. But, you know, yeah, right. Well, you don't fine.

Steven Bruce 49:06

You said that you had detected enlarged prostates before. Does that mean that you're getting into some sensitive areas with your scanning, and that, of course, must have its no

Andy Rowe 49:15

so old sound scanning. You can look through the bladder at the prostate. You know, we're not, we're not doing. I mean, you know, if you want to get close to the prostate, you have to erectile scan, absolutely not going there. But you can, you can measure the volume of the prostate, if you just get the patient to come with a full bladder. And you can do a measurements in three planes, and then, you know, multiply them by each other and by not point five two, and you'll get a measurement. And as long as it's less than 30 milliliters, the prostate is not enlarged. I mean, it's a binary things, either not in large, or it's a large you know, of course, it's that's not really the way it is. But in terms of ultrasound measurements, if it's less than 30 mil, you know, it's fine. If it's over 30 mil, it seems

Steven Bruce 49:57

to be, to me, to be a very good. Way of measuring that, because I understand the evidence indicates that digital rectal exams are not actually a very good way of assessing prostates.

Andy Rowe 50:07

I don't know. I mean, the only way you'll know if someone's got prostate cancer is to biopsy it. You can't tell from doing ultrasound,

Steven Bruce 50:14

but your starting point is to say there's a bit of an enlargement or something abnormal

Andy Rowe 50:17

about Yeah. And so I think if you know, the ideal thing is that people would have a PSA, you know, at some stage to say they're 50. I remember when I was 50, it probably doesn't happen. Now, you know, my GP said, well, now you're 50, we should probably do a PSA. And I said, Well, you know, they're not very reliable, are they? And they said, no, no, but well, you know, I think we should so we did it. And so blood test and

Steven Bruce 50:42

tick off.

Andy Rowe 50:44

And then next time I saw him, he said, Oh, you know, PSA was fine, so we don't need to worry about that, quote, unquote, which is just patiently, not the case. And but I think if you've got a baseline PSA measurement, and you know, if there are urinary symptoms, and we should talk briefly about urinary symptoms, perhaps with this, with this next slide, because I think our audience are very interesting, so we can have the next slide up, that'll be good then, then, you know, a change in volume of the prostate is interesting, if the PSA is rising. Now, this is, this is a an abdominal

ultrasound of a patient who's got a fibroid. So you can see the fibroid, so it's a big, round thing, and you can see the bladder. And again, I've found that this has made me talk with patients much more about urinary function, because fibroid is an enlarging thing, and it can give patients back pain. That's what caused my mother's back pain, I think, which took her to the chiropractor, which started off me becoming a chiropractor all those years ago, and she ends up having hysterectomy, but a fibroid, yeah, they commonly give back pain. But of course, you can see how the bladder is being compromised here. And so one of the things that, again, particularly as a bloke asking a female patient about urinary function, is something is just a little bit sensitive. And I think, you know, women who have increased urinary frequency, it nearly always gets put down to pelvic floor problems. Yes, well, you know, it isn't always pelvic floor problems. It's quite commonly something that's expanding, you know, inside the embarrassing area to discuss. Yeah, but the nice thing about doing arts and is that it gives me a kind of way of talking about it, because it's like, well, the ultrasound has shown us that there's an issue here. So tell me about, how many times at night Do you have a wee and if they say, oh, you know, four times I'm going, Oh, that's quite a lot. Then maybe, maybe this is an issue. And these patients will get back pain at night, because, of course, a fibroid will tend to have a mechanical effect on things, particularly when they turn over. It causes issues when they get up. So we don't really telling these patients, you need to change your mattress. These are patients who have gyne problems that's causing their back pain, and we can see it. And the funny thing is, I wrote to this patient's GP, saying that she got this and I think this is causing her back pain. And GP said, I don't think so. I think it's just muscular, which I think is hilarious, because he just didn't want to be told. And that's what we're up against, unfortunately. So I hope that you know my successes osteopathic chiropractors who end up doing this, can, you know, be confident, and, you know, be strong and start to incorporate it more into our scope. I wonder

Steven Bruce 53:26

if you'd written a GP and put yourself down a sonographer instead of chiropractor, whether to have taken the information differently? Yeah, no, no, I

Andy Rowe 53:32

would always say that I got with my PG cert, medical ultrasound, but, but that's, you know, that's, you know, that's, that's, that's the downside. There's loads of upside. Then the main thing is, really, the abdominal ultrasound has helped me, I think, understand why many of my patients have back pain, and why their back pain can be recurrent. We could talk about

Steven Bruce 53:56

AAS, yeah, we could have time, but you got a minute on them, okay?

Andy Rowe 53:59

How many? How many abdominal aortic aneurysms Do you think I saw last year?

Unknown Speaker 54:03

I have no idea. 488,

Andy Rowe 54:06

right? Okay, okay, so I've been to to think, you know, hear what the the audience, well, I'd be interested

Steven Bruce 54:10

to know. We'll never find out. But how many abdominal aneurysms have gone through a practitioner's hands? But they never knew, no

Andy Rowe 54:17

because loads those I would not have predicted. So only one of them was a surgical only one was big enough. So so on ultra scanning. They they if they're over three centimeters in diameter, they need hospital monitoring. Once they get to four, four and a half, they're starting to do surgery. But the nice thing about picking them up is it makes us think about blood pressure and cholesterol levels, and again, we can help patients think about this a bit more, so it helps us be more holistic about

Steven Bruce 54:43

our patient management. And that's easy to identify on an ultra relatively

Andy Rowe 54:47

Yes, the bigger it is, the easier it is. We're gonna have to stop

Steven Bruce 54:51

because we've run out of time, which is a shame, because we were going to talk about the mentoring that you now do. But we will send this out as an email later, either today or some. Row. And you know, if there are more questions about this, perhaps we can send them on to you. I mean, whereas has been asking about, you know, butterfly ultrasound, whether that's the way ahead, is it more affordable? And so on, I suspect that not only the cost of the machinery, but actually the cost of the training is going to be taken into account.

Andy Rowe 55:17

You've got to do training. Case is the organization, the consortium, for the accreditation of sonographic education, your training must be case accredited. Underlined,

Steven Bruce 55:27

now that's a lot to take in, and lots of questions I didn't get around to answer asking. So apologies to apologies to those people whose questions didn't get asked very, very informative and really interesting. Thank you. Andy, no, thanks. Nice

Andy Rowe 55:39

to be here, Steve, nice to spread the word. And I hope that some of our audience will, will, you know, take up the baton and run with

Steven Bruce 55:46

it. Well, there's been 375, of them, so there's a good number out there listening to this. And of course, there'll be a lot more that. Watch on catcher. Start with MSK. Start with MSK. Hey, that's it for today. I really hope you found that useful. I find it really interesting myself.