

Spinal Case Histories and Lifestyle Essentials - Ref 78RB - Draft Transcript

with Rajiv Bajekal
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TRANSCRIPT

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Steven:

Well, I have Mr. Rajiv Bajekal back with me for today's zoom conference call. He's been with us a number of times before he is, as I'm sure you probably know by now a consultant orthopedic surgeon and has brought a number of interesting spinal cases to the table before he is also a board certified lifestyle medical practitioner, which means he has a particular slant on healthy living. And we'll be seeing a little bit of that later in the show, but as a particular interest today or particular interest today, we've got a competition for you, which we will be introducing a little bit later on and there will be a price of a very decent bottle of wine for the first person who gets the answer. Rajiv. It's great to have you back in the studio with us or not in the studio, in your, in your sitting room, your office with us by zoom now.

Rajiv Bajekal:

Thank you very much for having me again, Stephen. So yeah, I'll, I'll get stuck in straight away from me. So just to reintroduce myself, I work with the total orthopedics privately and may all over London. We are a group of orthopedic surgeons and we provide all the areas of interest in orthopedics. I'm a consultant at the Royal free hospital London, NHS trust and I'll move straight on to the Spaniard cases that I've brought. I brought a selection of two pretty interesting cases. So the first one is COVID related. I mean, when COVID time, so it's worth just highlighting some of the issues that we still face. And we face particularly at the start of the epidemic when I mean the binders was all over the place. It was quite frightening. We hadn't seen anything like it.

Rajiv Bajekal:

And just at that time, this very fit 54 year old lady who was kind of perimenopausal if you like, cause crossing a pedestrian crossing when she was tossed into the bike car, that didn't stop. So she went up in the air, landed awkwardly and clearly did a spinal injury. I mean, she had the whole trauma series and so on. But the only injury she really had was at this area and you probably can't see so well on the AP view on the AP view, which is this one here, we look at the pedicles. So if there's a widening of the pedicles, it usually signifies an axial loading. So there's a compression, like somebody diving into an empty swimming pool, let's say, or hitting their head on the bottom of the swimming pool, they get an axial compression load and they get what is called a burst fracture.

Rajiv Bajekal:

You can, however, on the lateral view, discern that normally the word debris are shaped fairly square in shape. This one here is clearly compressed a little bit, so you can see the end plate is depressed. I mean, on the face of it, it doesn't look so bad. You've seen worse. I'm sure. And we had seen worse, but remember that the whole world was full of COVID patients. This lady was terrified of staying there. She wanted to get out, but absolutely couldn't get up at all or move around. And she was in agony. So we tried a number of things. We tried persuasion with the physiotherapist. We tried a brace and nothing seemed to work. So we did some more imaging and this is a typical CT scan. And the advantage of the modern day CT is that you can look at overall alignment and you can see just at this level by markers is there's the compression fracture and it's bending the body into Chi forces. So when you see the older ladies who had osteoporotic fractures, they get bent because the fracture is typically in the thoracolumbar junction, where the normal kind forces meets with the normal lumber low dose test. And that is the point at which the vertebra is more mobile and the spine can take over. So we were particularly concerned that this fracture was at that level.

Rajiv Bajekal:

Now we weren't sure

Rajiv Bajekal:

That it was an unstable injury. So the ways to determine stability, which means can the spine take its normal load without deforming, without causing permanent pain or causing neurological deficit. That has our definition of instability, which is quite a lot of words put in, but essentially the way we determine is by imaging. So this gives you an idea that the column, the first and the second column on wall, but what it doesn't tell us is, is there an element of injury to the posterior column, which is at the back and for that we had to get a and M MRI scan done. When we do an MRI scan we look at edema in the bone and you can see bone marrow edema here. So that's obviously the fresh fracture, but what I draw your attention to is the fact that here in the posterior structures or the interspinous ligaments, you can see a higher signal. Normally it should be dark in color, in a T2 sequence and a STIR sequence suppresses everything except fluid. So fluid appears bright, and this is fluid over here. So this indicates that there is an element of stress on the entire spine ligaments.

Steven:

Rajiv, can I just interrupt for a second? Oh, of course. I don't think anything to do with what is that dark interruption in the ligament at the upper end of the MRI and just where your cursor is now and be here? Yes. There's a sort of an indentation in the

Rajiv Bajekal:

Oh yeah, that's an artifact. So you get that sometimes towards the edges. When you take a big section, you can get an artifact that looks like that, but that admittedly does look a bit worrying, but it isn't because when you look at the other sequences that looks okay. Yep. Because of the limits of what we can do on a PowerPoint presentation, I've just chosen the best ones. So so yeah, I mean, if we had to treat this in normal times we're either have kept her in bed till she gained truncal stability, which means she was able to control her spine muscles and she'd get up and get going hopefully. Or we could put her in a brace and wait for a few days, but here everybody around her was coughing and she was terrified should get COVID. Now if we were to operate normally with putting two screws, so two screws above two screws below with rods on either side.

Rajiv Bajekal:

Now that's a three hour operation in most people. So that, that would be a long operation, which we really didn't want to subject her to. So we thought of innovative solutions to this. And what we looked at was could we do this minimally invasively? And we had a cunning plan. I mean, the one advantage of this covert business was the fact that all of us got immediate remote access to everything, which everybody, every other time we were being told our patient confidentiality, you shouldn't look at stuff on your phone or on your home computer, but suddenly within a week, I could talk to six spinal surgeons at the same time, who all sitting and sheltering at home or hiding from the virus. And I got opinions. So we moved on and did this a very elegant operation, which I have shown before, but really this is percutaneously done.

Rajiv Bajekal:

You do it on image intensifiers. So we put it into guidewires and you have this very elegant device called a spine, Jack, which you elevate it's exactly like a, like changing your car tire. You have a Jack to lift the car up. You have two plates that wind up on this and it lifts the end plate up. Now the real problem with this is not this procedure. This is easy to do. It takes about 30 minutes, but the danger in an acute fracture is putting in the cement, which you can see on the bottom two images. And that cement bone cement is quite viscous, but it finds the passage of least resistance. So to quite easily leak into the spinal canal and paralyze the patient. So I was terrified doing this. But you know, you have to grit your teeth and say, okay, I'll wait for the cement to become a little former, a bit like potty and injected at that point.

Rajiv Bajekal:

And if you have a strong registrar can inject into bone and you're focusing on the imaging to make sure that nothing leaks out at the back, you get an outcome like this, which was very gratifying. I saw her six months later and you can see here that the highest pretty much restored boring for a little bit of depression, but the important thing was she was able to get up, stand up and walk home the next day. And she was relieved to be out of the COVID infested boards and actually recovered quite well. As I've said before, once that you know, the, the danger of the elective surgeries, there's only one paper out in the landset and it tells us that in jungle general anesthetic, so associated with the 20% mortality when the COVID epidemic is right. So we were worried that she would be one of those 20%. Now we, the results here in the UK haven't reflected anywhere near that. So we are back to doing a little bit more operating now, especially since they are rate has come down and we're seeing much less in the way of infections, active infections around.

Steven:

Remind me how old was this patient?

Rajiv Bajekal:

So she was 54.

Steven:

Okay. So she's, she's reasonably young. She's not, I'm sort of very elderly and frail osteoporotic lady.

Rajiv Bajekal:

No, that's not cheesy. She's relatively fit. And well, in fact, a DEXA scan, which was done a bit later was pretty normal. So she was in the normal range.

Steven:

Yeah. And that cement that you've put in will that last indefinitely, or will it have to be revised as

Rajiv Bajekal:

No? There are various combinations of cement, so there's some with a bit of hydroxyapatite and some which are the typical bone cement, which is what the dentist uses to put into your tooth when you eat too many sweets. And that, that stuff just sets like concrete and it is like concrete. So we just leave the whole construct in the word brand. That's fine.

Steven:

Okay. And is she left with any visible or subjective limitations as a of that injury?

Rajiv Bajekal:

Usually four to six months. There's some amount of discomfort, so she's not completely normal. I wouldn't recommend that she went running for instance, but she's otherwise very, very free of pain and is quite normal.

Steven:

I'll fill out six months. Is she going to be able to return to whatever is her normal activity?

Rajiv Bajekal:

Absolutely. Yeah.

Steven:

Okay. That's that was an interesting one. So just run me through, again, her presenting symptoms, she said have trauma to her back when she came in, was it simply pain at the thoracolumbar junction?

Rajiv Bajekal:

That's exactly right. And she wasn't able to stand up and walk or do anything. She was being rolled and managed very gingerly on a bed yet she was fighting because obviously everyone around her was coughing and there will be strength people running around with masks. And you know, when you, when you, at the beginning of the epidemic, when people hadn't got used to doctors within 95 masks and so on, and it was a pretty fragmented site, I can tell you.

Steven:

Yeah, of course we're now getting used to it in shops as well. So it's more the mill, isn't it? Yeah.

Rajiv Bajekal:

Yeah. This is a man who came and he presented to one of my colleagues at the age of 15 with a severely painful right hip. And you can all see what's going on. And this is where I wanted to make an offer for bottle of wine. For the one who guesses hip his arthritic, you get no marks for that.

Steven:

So that right hip I mean, what, we're just, as we're looking at that right hip, but what tells you that it's arthritic is that the, the joint space is virtually zero. Isn't it?

Rajiv Bajekal:

If you compare it to the left hip where you can see clear daylight between the ball and the socket on this side here, the right side, there's bone on bone contact. And there are these subarticular cysts as we call it. So you see these darker areas, which are height, which are fluid filled actually. And that's a high pressure within the hip joint. So this patient is bound to have excruciating pain, usually in the groin, they talk about it as growing pain, but actually that is hip arthritis, pain.

Steven:

The suggestions has been a leg length discrepancy, which of course

Rajiv Bajekal:

Yeah, they can be Legland discrepancy when you get osteoarthritis of the hip and you can see the pelvis is a bit tilted here. But that's not the winner of the bottle of mine.

Steven:

So we've had to actually, when you might want these, and these are incorrect, we've had three people suggest Perth is disease.

Rajiv Bajekal:

Okay. Both these disease you'd see generally something called Coxen magnets. So the head size, so the, the hip head would be considerably larger. Now, what I have to say is the reason I brought this up is I osteopaths and physiotherapists should have diagnosed this condition if they had seen this patient and would have diagnosed that I'm sure because you guys are good at it. But in fact, he escaped even the GP, net, despite complaining of a lot of low back pain throughout his life. And that has where I think we'll move on Steven, if that's okay. Yeah.

Steven:

Okay. Well, we had, we had [inaudible] we had a fracture dislocation metastasis from prostate and Paget's okay. So we know nobody's, there's one more, I'm going to run. I'm going to be incredibly with spinal right now, so we didn't get, nobody got the answer that you're looking for.

Rajiv Bajekal:

Okay. So I actually put up the x-ray by mistake because I double click on it. So can anybody guess now at this point for half a bottle of wine? Well, the leap from metal,

Steven:

I think that one's a little bit more obvious than the last one.

Rajiv Bajekal:

Okay. So just to any guesses on this one,

Steven:

I it'll take a while for them to come through what we've they're still coming through from the last one. Yeah. We've got one, one S has come through.

Rajiv Bajekal:

Okay. So that's a, that's the correct answer. So this is really a textbook bamboo spine as you call it. So normally you wouldn't see these things which are bridging sin Desmo fights. So as against osteophytes, which you see little beaks of bone at the level of the word Abbra here, you see some Desmo fights, which are bridging boon across the work abroad. You also can see that the sacroiliac joint here is completely obliterated. So there's bone across the sacroiliac joint. So this is ankylosing

spondylitis, florid. You don't see it nowadays because everybody gets onto these immune suppressive drugs that are disease modifying and nobody gets this. So this was quite a rare entity. And I saw this guy about 10 years ago.

Steven:

Roger, would you mind taking us back to the previous slide and just show us what we missed on that one? That should have been

Rajiv Bajekal:

Okay. So right at the top and the whole mess message in this is don't just look at the obvious pathology, which is this area here. If you look at the sacroiliac joints, normally you'd see the sacroiliac joint as a darker shadow here. But here you've got bone bridging across and you got this centralized or specific area. Can you see this bringing of bone? It's a coming plan of just putting the lower end of the spine on this one. But that is in fact, a typical bamboo spine appearance. So but I appreciate you. Don't all look at x-rays very often, but, but the reason I say you should be able to diagnose this condition is if you get a young man in particular with low back pain or pain in the region of the [inaudible] joint, one of the clinical tests that I absolutely insist my trainee should do in the young patient is to look at chest expansion.

Rajiv Bajekal:

If you got somebody with a chest expansion of less than five centimeters, and the reason ankylosing spondylitis causes that limited chest expansion is the fact that it ankylosing spondylitis causes ankylosis of Sino veal joints. So it will affect the cost to join. So chest expansion is very, very limited, and that's why they get, because they get bone that forms in the cost of vertebral joints. So you, you get it at these levels and the patients just doesn't have a chest expansion. Now, if you look at the lateral view of the spine, it's even more clear because what you can see is this bone that bridges across from one word abroad to another, and it, this is an absolutely typical, Bamboo's fine as we call it. Yes. Now the reason I put this up is orthopedic surgeons tend to be quite a monocular in what we can see.

Rajiv Bajekal:

So if I'm a spinal surgeon, I would consider the spine to be the most important bit of the upended killer skeleton. If you like, if you're a hip surgeon, you think that the hip is the source of every problem. And this is one of those things where we really should have an MVP approach to it. So of course, the hip surgeon, because he was he was diagnosing this to be a hip arthritis. I mean he had diagnosed the problem to be hip arthritis, went on to the place that Hey and you can see sorry, even before that you can see the cervical spine by the way. So this is another problem with people with ankylosing spondylitis is that they have a neck that's literally bent down so that they're looking at their feet all the time. They cannot look up from the, you know, the position.

Rajiv Bajekal:

So they've never actually seen the horizon. And that is one of the big limiting factors of ankylosing spondylitis. And one has to consider doing an operation on the spine to straighten them up so that they can look above the horizontal. The other thing is the spine is deformed here. So if you replace the hip, you may end up getting problems with stability of the hip. Now this patient actually had

what we call a big ball, hip replacement. So in other words this is a huge head that has been put in. It looks like a perfectly satisfactory hip replacement, but because the spine hasn't been attended to he ended up getting a dislocation, as you can see over here and doing a spinal operation for somebody with this condition where everything is, is fused into one big block is actually a really big problem because you can imagine that everything is moving as one big lever arm.

Rajiv Bajekal:

So if you have to divide this mine and do an osteotomy and correct the shape of the spine, you need the fixation over multiple segments. So it's actually an extremely complex operation. Yes. Why we were debating this. We put the head back in, of course we just reduced it close, but the other big complication that one sees in ankylosing spondylitis is this condition. And can you all appreciate that there's new bone that has formed here in the extra articular tissues and that is called heterotopic new bone formation. So it's bone that has formed outside of the hip joint. And that is commonly seen in ankylosing spondylitis. So what it does in effect is it's different the hips, so the hip wouldn't pop out anymore, so we could then attend to the spine separately. But I just think it's an interesting, and rather a complex problem that is really best dealt with in a multidisciplinary manner because it's really otherwise extremely difficult to deal with. So I'll just stop the screen, share for a minute and answer any questions that you may have from the audience.

Steven:

The first one, as I predicted came in after we switched to the second case, but actually concerns the first case Reggie Sally has just asked if, had it not been for COVID would spinal balloon kyphoplasty have been an option in that patient?

Rajiv Bajekal:

Yeah. I mean, balloon plasty is very similar to what we've done. So what we've done is a more robust balloon. If you imagine a balloon. Yes, it's a, it's a pretty strong balloon, but it is nowhere near as strong as the spine Jack. So it is an effective pain management procedure in elderly patients with osteoporosis, but it rarely ever corrects the deformity as well as a spine Jack does. So we would prefer a spine Jack and most of those situations does that

Steven:

Spine Jack have limitations then would you not use that in an elderly osteoporotic patient?

Rajiv Bajekal:

If I had a very osteoporotic patient, I would be worried that the plates that we've used to elevate the end plate would rupture through the end plate. And so I would be probably using a balloon or just injecting a little bit of cement as of whatever plasty. So there's a difference in the approach there, because all of you wanting to do in the very elderly osteoporotic patients is really stopped the micro movements of the fracture side, but just gluing it together with a bit of cement. Okay.

Steven:

Just so you know, when we didn't get all the answers in as quickly as we might have liked, but apparently we do have a winner. We have somebody who got the AIS diagnosis, correct from the

first MRI x-ray and that's Helen Springs. So Helen, if you'd like to make sure we have your address, we will make sure you get your prize in the post as soon as we can.

Rajiv Bajekal:

Mmm.

Steven:

Only same subject though. Nick burns was asked about that extra bone you were pointing out, is it because of excess inflammation after the operation? So therefore reaction to the operation?

Rajiv Bajekal:

No, there's several elements to it. And ankylosing spondylitis, they, they form more new bone as it is. It's an inflammatory condition. And they tend to form a new bone. The other thing is, I don't know if you spotted here, but there's no cement in the bone. So this is an unsegmented kind of hip replacement. And then on the cemented hip replacement, what we do is we machine the female who received the implant. So you literally use a chisel or when you use reamers or rasp to machine it. And there's a little bit of that bone marrow that comes out, and that is very host eugenic. In fact, we can use it for bone grafts. And if that goes into the soft tissue and you have an assistant who is not washing out the soft tissue, that will form new bone exactly. As this has done. So variety of reasons. In fact, quite often we would prescribe something like indomethocin, which is an antiinflammatory tablet, or we would irradiate the pelvis of the patient to stop this new bone from forming. So that's a step against heterotopic ossification.

Steven:

I might've mistaken this when we, when we looked at that slide, I thought you said that actually that that heterotopic was actually useful in this case.

Rajiv Bajekal:

It was, it was because we didn't want the hip to pop out again. So it's different data, but it's not great from a patient perspective because they get limited movements, obviously, but here we be faced with a complex problem that there's a spinal deformity, which tilts the pelvis and makes it more prone for dislocating. So while the spinal surgeons were worrying about how to do a big operation on the back the hip resolved itself, but just stiffening up nature has a way of finding solutions for it.

Steven:

And you can still read it to ask for a bit of clarification. I think because the zoom connection was a little bit fuzzy at the time you said that the originally surgeons were worried about the risks of anesthesia in fierce she asked whether you were talking about general or local offices,

Rajiv Bajekal:

Gender anesthetics. Yeah. One of the things is that COVID-19 the coronavirus actually lives. As we know, there are a lot of asymptomatic spreaders or people who carry the liners, but don't actually have symptoms. Now, if you put the tube down the throat, you actually pushing that virus into [inaudible] territory, like the lungs. So it really makes a mess of your life with goes in there. And that was the body we had initially in the Kovac times.

Steven:

I never actually considered that when you intubate somebody, how far down does it go?

Rajiv Bajekal:

Well, the tube goes quite close to the Corrina, which is the bifurcation of the trachea. So it goes down to yeah, a fairly deep level, but more than anything else, there's a bit of trauma to the insides and so on. And it's a fertile ground for the wires. I mean, remember the wires can get in through your skin. So getting it on your hand is not a problem. The problem is you put it onto a mucous membrane or you touch your nose or your eyes. And it's, it's more likely to get in. But in fact, now we know of course that it's more of a droplet infection, hence the mask, hence the facial the fields and things that we all wear. Now

Steven:

I've been asked to get a little bit more, a little bit more clarification on that heterotopic bone. I know you said it was due to probably in part some leakage of the bone marrow. That is it, is it actually an inflammatory reaction? That's how

Rajiv Bajekal:

Yes there is. It's, it's part of the it's powerful course, if you like for ankylosing spondylitis, it's one of those inflammatory conditions. And if you had to take on, there are two things about ankylosing spondylitis, there's inflammation of sinoatrial joints, but it also causes something called [inaudible], which means inflammation at the point of attachment of ligaments and tendons. So it is an inflammatory disorder and it therefore encourages inflammation and pain and therefore new bone formation in this manner.

Steven:

Okay. Thank you. Amy's also asked whether she's writing, thinking that ankylosing spondylitis is associated with tight hamstrings

Rajiv Bajekal:

Quite yes, because they, the pelvis gets stilted a little bit and everything just defends up. So tight hamstrings, but also painful hamstrings because the point where the hamstrings originate in the sitting bone or the ischial tuberosity is where they get inflamed. So you get quite a lot of pain on stretching the hamstrings.

Steven:

Right. Okay. I'll bet. Some more questions will come in shortly, but you've, you've started a lot for the bottle of wine. I think you want to talk about mushrooms as well, don't you?

Rajiv Bajekal:

I do really? Yeah. It's just for fun, but it's one of those areas. I'm not letting you go unless you listen to my mushroom Bates. Okay. So some interesting facts

Steven:

You've taken on cooking in a big way recently. So

Rajiv Bajekal:

Yeah, and mushrooms my latest fascination, I also, by the way you should take to sprouting, I do this as a hobby, but this is a broccoli sprouts, which are, which are fantastic. Really the anticancer they're very nutritious and we should all take the sprouting, I would say during covert times. But just about mushrooms, mushrooms are not part of the plant kingdom. In fact, they have their own kingdom. If you like. I think these are just some interesting facts. The 85% of the genes that are there in mushrooms are similar to human beings. So just like human beings can't make their own food mushrooms actually don't make their own food and they make it, they get it from surrounding soil and from dead trees. So if you leave a log of you know, a dead tree in your garden, if you lift it up after a couple of weeks, you will see a thin my psyllium like growth underneath.

Rajiv Bajekal:

And that has often mushrooms. So I don't know if you've heard of this concept of pilot coins, but plants or green leafy vegetables. They have this chlorophyll unit, which is called a Tyler cord and that enables them to make their own food. Now what's interesting about mushrooms is that they synthesize, they own vitamin D and on exposure to sunlight. Now, most British mushrooms actually grown in the docks. So they're grown in carriages and various places in Leicestershire for instance. And you won't see that have been irradiated with ultraviolet light, whereas in America they often put out in the sun. So what I've, what I've taken to doing is I'm exposing the undersurface of the mushroom, which is where the gills are to sunlight. So you, you pick a box of mushrooms, just lay out mushrooms and expose them to summer sunlight between 11 and three.

Rajiv Bajekal:

In fact, that's the best time for human beings to also get exposed to sunlight. But instead of doing that, just expose your mushrooms to some light and you get a good source of vitamin D. So even the box mushrooms will give you vitamin D. I also learned that there's a vitamin D for a, I hadn't heard this before, but they are present in mushrooms that have been irradiated. So, you know, about vitamin D three, which is the animal source of vitamin D or the source, you know, that we make when we are exposed to sunlight, B two is the mushroom source, or, and before is also found in mushrooms. So mushrooms were there before we were there, actually on this planet and they're essential for soil integrity. So for those of you who are, farmers are interested in a bit of gardening if you put your spade or a shovel into the ground and you feel like you're hitting concrete, it is because there's no height, mycelium that is a softening of the soil.

Rajiv Bajekal:

There's no interconnecting layers, and it is essential to allow this mushroom or, you know, the, the mycelium to grow in that layer. You get this micro rise as the core, and that is essential for soil fertility. So these are the kinds of edible mushrooms. And I just put this up because these are enoki mushrooms, by the way, very cute little things way tasty to eat. But this is really to show you the gills, which are the undersurface of the mushroom. So if you expose the gills to sunlight for three or four hours, you can get your daily dose of vitamin D by cooking the mushroom subsequently. It's important to cook mushrooms and I'll tell you why. Well, firstly, you should be careful. So if you're into foraging for mushrooms, just be aware because there are a whole lot of the more attractive looking one, you know, the toadstools in comics and so on.

Rajiv Bajekal:

Those are poisonous. So you should really be sure that, you know, your mushrooms before you get them from the wire. But it is quite an ink. You know, it's quite an entertaining hobby to get these mushrooms. And especially if they're growing while they often have vitamin D, because they often in sunlight there now it's important to use heat to cook mushrooms. So raw mushrooms in salads is no good. You don't digest them because they have a very thick layer of this carbohydrate material called chitin. And that chitin prevents our digestive juices from working on the mushroom. So usually you need heat at least, but you probably, it makes it taste you if you use a little bit of oil to cook them and that harnesses the full nutritive value plus the culinary benefits of mushrooms for those of you who are plant based or interested in plant based substitutes for me mushroom has a lot of umami.

Rajiv Bajekal:

So it gives you that fifth, you know, the, that taste element. And if you walk into Pascoe where Derek Sarno has got his wicked health creations, I mean, you can get very meaty tasting mushrooms. And if you put in an oyster mushrooms and you heat it in an oven with a little bit of olive oil I mean they can taste exactly like that. I'm told I haven't eaten bacon for 30 years, so I wouldn't know, but I can tell you this stuff tastes pretty good. So besides that mushrooms actually feed the microbiome. So the good bacteria in the car are fed by mushrooms. So it's, it's really a good source of minerals and B vitamins and extremely good for health. But my interest is also from a medical aspect. Mushrooms have been shown to have a lot of medicine and uses and in particular it enhances brain activity.

Rajiv Bajekal:

So there's something called chaga. Chaga is the King of mushrooms. And in fact, during the world war, when the Germans took over Finland and Norway, they took away all the coffee and it's a big coffee drinking country. So they found that chaga mushrooms make a pretty decent coffee and it, it has a similar effect. So it gets you awake in the morning, gets you focused, but doesn't have the after effects of coffee. So it's worth looking at these kind of mushrooms and there's something called lion's mane, which is supposed to prevent Alzheimer's. But what is important is that mushrooms are something that they give rise to something called adaptogens adaptogens just reduce the roller coaster of life. So there's smooth out things. So if, for instance, you have insomnia then ratio, which is another mushroom, and it's called the queen of mushrooms can be used to just calm you down so that they get a better night's sleep

Steven:

When you get all of these things. Because frankly, I shop in Waitrose and they have the same bulk standard array of three or four mushrooms Chestnut ones, white ones. And

Rajiv Bajekal:

Yeah, that's, that's a very good question, Steven. So you have to order it online. And the company I use is something called four Sigmatic. So for you are Sigmatic, so four Sigmatic, it's one word. They also on Instagram and I tend to follow them because they've introduced me to this wonderful world. I mean, if you're into eclecticism and if you want to start running, you should use cordyceps. I mean, you can make a tea out of [inaudible], which is another mushroom. and it really increases your VO

too. so you utilization of oxygen is increased. So you'll do better if you're going out on a long cycle, right. For instance, and you have core steps before you set off, you'll beat the whole lot of your colleagues you'll be ahead of them. and in these times of covert, it's worth remembering there's another one called Turkey tail mushrooms. but the most interesting of this, and I'm not advocating a hallucinogenic or, you know the magic mushrooms, but it's just worth remembering that these are actually legal in Britain. So it's not illegal to use psilocybin. but it has been tried very successfully, just one dose for people, for instance, we're addicted to smoking or alcoholism, they can easily give up those things or a BHB it's remarkably useful in these situations.

Steven:

And then Jonathan sent in an observation, apparently there's a lot of research currently into micro-dosing psilocybin for treating depression.

Rajiv Bajekal:

Absolutely. Yeah, it's, it's, it's one of those things. It's like hemp oil and things that are coming in and are recognized as adaptogen. So psilocybin will have promise. I mean, the real problem is that the drug industry loses out of, you know, I mean, big pharma is always got a stranglehold on these areas and they would not like us to use natural products. So, I mean, there's no point they don't get anything if you start eating broccoli and preventing cancer. So it's it's no fun for them. So it's just what being aware of it. And I just thought I'd introduced me to the wonderful world of mushrooms.

Steven:

I think that's, I think that's great. And I think the audience is very pleased that as well. One of the questions that's come in is whether we get the same nutrients from dried mushrooms.

Rajiv Bajekal:

Yes, you do, actually. So it's worth keeping you know, a stock, particularly if you're not shopping very frequently and you need something then porcini mushrooms and other things you can make a fantastic stock out of. So mushrooms, yes, they can be stored safely in a dry form. And they are as nutritive as that as normal fresh mushrooms,

Steven:

Nikki actually sent in an observation that her thoracic surgeon suggested that she take the mushroom Coriolis as a supplement, instead of having more chemo that, or lung lobectomy, she says there's a lot of very convincing trials on the effectiveness

Rajiv Bajekal:

Of, of what, sorry. I missed that. She Coriolis.

Steven:

Okay. Wow. Okay. That's interesting. And yeah, Kasserine is a sentence, something about sprouting, which you mentioned earlier on, apparently not good for people with also immune fibroid, autoimmune conditions and bacterial overgrowth, then she includes Canada.

Rajiv Bajekal:

Okay. I mean, it's probably, you've just got to be a little bit careful that you, I mean, these are my sprout babies as I call it. So I I actually I'll, I'll show you some of my sprouts. So I drew them in the office. So twice a day, I come and rinse them. So if you get back to your global growth, that's a big problem. Yes. But if you're careful you can actually get a lot of nutritive benefits from from sprouts. And they're very cheap really. Plus they taste in salads, you just put them into a salad and you can,

Steven:

I think it's probably one or two more questions. The move best fitness Academy, whoever that is, has asked whether cooking mushrooms and a microwave has the same benefits.

Rajiv Bajekal:

I'm not sure, actually I think because the microwave generates heat in a slightly different way, it probably destroys some of the nutritive benefits of a mushroom. So I would probably use a pan and use the old fashioned cooking. So heat and a little bit of oil is probably better. Yeah.

Steven:

Christina said she couldn't Bali, lion's mane in this country and couldn't get it imported either. Apparently it's good for glaucoma.

Rajiv Bajekal:

Very likely. I haven't looked for lines mean I have to say, but these are available. If you look at four Sigmatic, you'll often be able to get a lot of the mushrooms through them. And they have an international presence now. So they are available in this country. In fact, I just ordered some of this chaga coffee, you know, the coffee mushroom for myself.

Steven:

Caroline's asked whether you've eaten the chicken of the woods mushroom.

Rajiv Bajekal:

No, but I'm, I'm keen to try it. I've heard of that one too. I, I forget the name for it. But it's a good one to try also. Yeah.

Steven:

Are you aware, does it have specific benefits? So just general nutritional?

Rajiv Bajekal:

No, I think it's just generally one of the edible mushrooms, all mushrooms have the same benefits, but it's not medicinal. If you see what I mean. Yeah. Correct. The medicinal ones have to be extracted often using alcohol or some other thing to extract the nutritional benefits. So the medical benefits

Steven:

Rajiv we've come to the end of our 45 minutes. And we're very grateful as always for your time. I was actually, I was interested to hear you say that I'm psilocybin is not illegal in this country. I

thought it was illegal to dry the mushrooms, which actually I believe brings out the drug more. Is that right?

Steven:

I'm not sure. I just Googled it before I came on air actually. And I learned it's not illegal as such, but it's, but as you say, you're not encouraging people to microdose themselves or otherwise with psilocybin. It'd be quite interesting. In fact, when I was back in the military, we often used to liken ourselves to mushrooms as opposed to mushrooms being 85% like humans. And we've always said that we were kept in the dark and fed on Roger. Great to have you on the show again. Thank you very much. I hope that needs to was enjoyed her first trip to the hairdresser since locked down and that she's now in a thoroughly good mood. And I hope we see both of you again soon. Thank you very much again.