

Patellar Dislocation - Ref 81JS - Draft Transcript

with Joyti Saksena
23rd July 2020

TRANSCRIPT

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Steven Bruce:

I'm joined today by Mr. Orthopedic consultant. He's also the chairman of orthopedics in London and he is the director of medical education at the Royal Free Hospital. Do we say, you're going to talk to us today. Yes, that's right. Thank you very much for having me on the show to give up your time and I'm hearing what you have to say. Perfect. So I thought I'm going to start my sort of discussion, stay with it with a case presentation. And then essentially talk about how I go through my sort of assessment of a patient with patella anticipation really then to decide whether, you know, this is the kind of patient that one can, you know, rehab or one needs to refer and do sort of further investigations or even search for options. I'm very happy to take questions either from the self Steve or for the audience, just, you know, interrupt as you, as you feel appropriate.

Joyti Saksena:

So in terms of tell the discussion, you know, the incidence of solidification is around six per hundred thousand population. And from a casualty perspective, we see, you know, about 3% of all our knee injuries would be, you know, some sort of Telogis occasion. So it's a small number that predominantly affect, you know, males and females equally. And also in terms of the age ranges, typically that sort of older adolescent young twenties type of person. The key thing though, is, is that once you've had one to tell the discussion, the risk of subsequently dislocating is around 30%. And that's really the main reason why we have to look at, you know, what are the patients that are potentially fall into that group and may need something, you know, sooner. And that that's, that's the reason we want to pick these sort of pieces up. So I'll start with the case, and this is essentially a, I'm an 18 year old Chappy's is at college and he's a, he's a skateboarder. And whilst he's doing some sort of a party trick, he twists whilst he's turning and he gets immediate pain and swelling, and a very abnormal appearance is unable to weight bear. He gets sort of an ambulance is called, he gets taken into hospital and essentially this is, you know, the appearance of, of his knee. You can see, you know, really from that photograph that is sort of an abnormal lump in the lateral side of his knee. This is his first time he tells you, and really the immediate management at this stage is, is to either if you know that this is a patellar dislocation is to try and reduce it on the, some kind of sedation or internals or analgesia, or essentially get some further imaging. So in terms of the imaging, we start by really just getting a plain radiograph. And some people would say that this is an extra that you shouldn't really see it's, you know, the patella is already out. And therefore, you know, there is an argument to actually say, well, look, you realize it's patellar dislocation, the quickest, and the safest thing to do would be to reduce it anyway, he had a plain radiograph and it's, you know, you can see it's very, obviously, you know, the kneecap is in the wrong position at this stage. Then if it hasn't reduced, you give that patient some sedation and you would reduce it more, more than likely put them in some kind of a brace or a cricket pad type splint, and then refer them back through there through the truth to the fracture clinic. And that would be, you know, the correct kind of immediate management we would normally at this stage. Then when we see that patient always generally get an MRI scan. And the reason, you know, one of the prime reasons for the MRI is when the patella dislocates, and you can see from this sort of image here, this knee cap is very much sitting on the side. It's got a, what we call a, an oblique angle and there's significant bone bruising just on the medial facet of the patella and on a lateral facet of the of the FEMA. And that shows you that the patellar is just slipped over the side. And as it's gone over, it's kind of knocked in cause that bone bruising, but more importantly with, we're kind of looking at what, is there any other damage to the articular cartilage, because that will determine whether, you know, something else needs to be done in the, in the sort of earlier immediate you know, few, few days or few weeks. Other things that we can assess here is that the patella is kind of slightly misshapen. It's sort of sitting on its side, the

trochlear or the sulcus of the thigh bone is, is very shallow. And you get a good idea of the rest of the structures that look pretty, you know, pretty, you know, anatomically intact before, before you move on from that side, could you just talk us through what type of image was that MRI was that just indicates to you that there's bone bruising? So this will be a T2 axial on the, on the left hand side and they, again, another T two coronal image on the right hand side. So T2 is essentially, you know, bone appears black fluid appears white. I've selected these really to show that bone bruising because on a T too, you would see bone bruising as this whiteness disappearance on, on the patella, on the inside and on the thighbone here. Can you see actually, my mouse there, Steve? So that's, that's my mistake, but on the, the whiteness on the black, on the black bone, that's the bone bruising, and that tells us that there's been an impact bruising doesn't tell us, you know, how acute or chronic the injury is because you can actually see bone bruising, even six months a significant blow to me, but it tells us that there's certainly been an impact there. And we call this a kind of a kissing lesion where the actual, as it's dislocated, it's slapped onto the side, and that's, what's caused the, the pressure, the damage from the bone bruising and likewise on the, on the coronal section on the right hand side here, we see that whiteness and the site as it's kind of slipped off the, the side of the patella of the, of the female. So then in terms of, you know, my assessment and, you know, I would like to look at know to make it easy, like six main things, and then a six sort of take home points for patellar instability. These are the things that we want to look for malalignment patella Alto. In other words, a high riding patella trochlear dysplasia whether the knee capitals. So Chris is very shallow as I showed them a previous MRI, and then something called the TT TG, tibial, tuberosity, TBO groove interval. And I've come on to explain that. Then we want to see if there's tightness on the structures on the outside of the knee, the lateral lateral retina macula. And that will mean that, you know, that there's a predisposition for that patella to come out on the outside. And then also one and forget, you know, as it comes, as it dislocates, it often damages the articular surface. And it's really important to, you know, get the imaging or, or even do a diagnostic arthroscopy just to make sure that there's no damage that needs repair. These are young patients. If they're just simply left, they'll either have loose bodies in the knee that can go on to cause other problems such as locking or they'll get early osteoarthritis early wear and tear. So you really want to pick up those articular cartilage injuries early. So in terms of the, the melon line, and you want to look at these, you know, your social patient as we all do from both the coronal plane. So there's a genuine valgum, as you can see in that sort of bottom left hand, radiograph, the knees are very valgus. There's going to be a lateral pool. These patients have a high Q angle. In other words, the lateral pole of the patella is making it want to dislocate. And also you want to look at alignment in there in the cross sectional, somewhat called rotational alignment. Really, you need a CT scan and that's really assessing the femoral versions of the hips or anterior or femoral or anti verted. Then what often happens, you know, people sit with femoral anteversion that distal femurs then internally rotate, and the tibias then externally rotate external tibial torsion. And that's kind of the triad of a, of a knee that's likely to dislocate. So if you've got significant version internal rotation of the distal femur and external reputational TVA, that rotational profile, those patients often walk normally because of those things, but actually in practice, they've got a high put on a patellar and more prone to justification in terms of the next aspect is the patella Elsa. I mean, there's lots of indices that we use. My preference is the kind of ketone Duchamp's cause the one thing most of these indices rely on the in cell civility or the Blackburn peel index is the fact that new need really needs to be around 30 degrees of flection. Whereas with a Kate on the shelves, it's very rare that we can get our radio radiographers to get exactly the right image. So key to under it doesn't really matter what degree of flection. And you're essentially measuring the distance from the the corner of the patella that measurement a over measurement B, which is the articular surface. And by and large, it should be sort of close to one. And therefore, if distance a in other words, the patella tendon is sitting higher than normal. Then it's

going to be a positive number. It's going to be above one. So anything above one on 1.2 is considered patellar Alto. And it's quite an easy measurement, you know, in a, in a normal radiograph to measure to see if someone's got a high riding patella that will tell us that it's a patellar is high writing, what it means. It's not engaging in the soldiers as soon as it should do it engages much later inflection. And that will mean that there's a propensity to dislocate. And it's typically when that when the patient is standing in extension, the next measurement that we look at is, is I'm looking at the trochlear dysplasia and really for trochlea displays ya, you know, you, you have to really have a CT scan. There are subtle signs on, on x-rays. You can see things called the crossover sign or on a skyline view of the patella. You can often see the Sharon trochlear, but to get any sort of meaningful measurement, a CT scan is really important. You're not only looking at the sort of shallowness of the groove, the flatter, the groove is the more likely the patellar is going to sort of slide, but you're also looking at the shape of the distant FEMA. And does your sort of classified it, the type a and the top left is a kind of a normal group. That B is a flattened group. The type C is where you have lateral hyperplasia. So the lateral side is just sort of flattened down and almost sloping. So for the patella, almost able to just slide off and the type D is almost the converse rather than having a soldiers. You've essentially got a convexity or bump. And so the patella is always just going to kind of fall off one way or the other around that bumper. I mean, the bump is actually part of the disclosure, you know, in the severe form. It, you know, you rather than getting a nice groove for the patella to sit in this bump forms, because the has never sat in the right place. It's a bit like the scenario with, let's say developmental dysplasia of the hip, the hip only, or the acetabulum only forms because the hip is pressed against the pelvis. As soon as you've got sort of a, a flattened or a high riding pelvis, the hip tends to fall out. The pelvis never really forms the same thing with the trochlear patella. Doesn't sit there from birth and as it develops, it forms this kind of bump because it's got nothing to restrain it. And that's really the worst case scenario, because almost certainly you're going to have to do something for that kind of pain patient, which is the patella. Even if it reduces it's going to come out again and then just moving on to the, the TTT, the tibial tuberosity trochlear groove distance. This is essentially a, again, a CT measurements. It's a little bit technical, but essentially you're overlying the FEMA with the tibia. And essentially you're looking at it. You know, this is this measurement where if the tidier is externally rotated, then the tuberosity is going to sit further from where the trochlear is. And so generally speaking, you know, that the sulcus should say exactly where the patella point is, and if it's laterally displaced, in other words, say, you know, people talked about a measurement or a lateralization greater than a couple of meters. Then they, again, the Patel is more likely to dislocate. And again, the adds to the increased Q angle, the Q angles is lateral vector. This pull of the patella within the sort of the femur and the tibia, Couple of centimeters sounds like a monstrous distance for external tibial rotation. Is that So, I mean, it's a, it's a testimony to say. So even up to, you know, you know, sends me to central your heart, tell us can stay in the right place. You know, that's, that's how our bodies have been designed. So it needs to be, you know, quite a large number for it to then really then fall out. But it's essentially what you're doing. It's not such that a timber is translated instead, it's just externally rotated. So you sort of distance has just suddenly becoming wider. And therefore it's more likely to, you know, tell us more likely to pull because obviously the tibial tuberosity is by the patella tendon attaches, the more externally rotated. It is the more that lateral pool. And therefore it's very trivial trauma, very trivial rotations that the patient undertakes usually an extension. And it just sort of literally falls out.

Steven Bruce:

I presume, I presume if you've got that degree of rotation in the tibia, you're going to have more problems of just patella dislocation. Cause I imagine that the articular surfaces of the knee are going to be effective, right?

Joyti Saksena:

That's correct. And not only that it's affecting your hips because of that increased femoral anteversion and it's also causing it's one of the key causes of overpronation of the feet. So when you see people with very flat feet, they often an externally tilted tibia. So the whole mechanics is a rotational malalignment. And it's really important, you know, as much as I'm a hip and knee specialist is to actually look at that whole patient and say, well, look, we may need to address something on the FEMA sorry, on the, on the foot and ankle or the feet, or even the hip as well. So then the last kind of thing is, is lateral retina macular tightness. And typically we're used to the patella, know what we call a patellar glide. We often do that as one of our tests and normally in an extension, the patella should glide. You know, we call it two quadrants to one half of the patella distance. If you try and push it immediately and it moves less than one quadrant, that means the lateral infrastructures are tight and you'd get this kind of patellar lifting. And that's what we saw in that MRI scan the patellar rather than sitting sort of perpendicular parallel to the, to the, to the distal femur. It sort of sits at an angle. And again, that lateral tightness is predisposing this patella to kind of lift off or just the Cate.

Steven Bruce:

Do you ever get corresponding problems in the opposite direction? And we've talked always about lateral dislocation of the patella, which is I imagine most common, but does it ever go the other way, except in the event

Joyti Saksena:

It does do. I mean the, the actual, the communist white reason why it goes measly is when someone has recognized that there's a lateral dislocation and surgically tightened the medial structures without realizing or appreciating all the other biomechanical problems. And, you know, so they've just simply done what seems to be a, a simple operation it's going naturally less let's reef, the medial side, tighten that up. And then it ends up going the other way, because you haven't addressed this, you know, maybe a shallow trochlear or, or a boss trochlea where it's just going to always just, you know, go flip from one side to the other. There are various kind of genetic conditions, things like Ella's Dan loss or these kind of skin laxity type conditions or hypermobility type syndromes where it can occur as well. Often the patella would go both ways. These are definitely people that you want to try and avoid surgery. They're just prone to, to problems. So really rehab is definitely the case. And they go back to the initial question, rehab or refer is trying to work out where these, you know, which sort of group of subsets of these patients, are they the kind of traumatic dislocation first time never, you know, they never had problems before significant kind of injury or, you know, rugby or sort of helmets inside of the knee and in kind of American football or something like that. Or is this a patient with recurrent instability, you know, episodes of subluxation, and then suddenly it's come out once. Or this is just at the bottom, just showing a, a lateral rectus accurate you know, rather than just simply, you know, in the old days, one would just, you've got a tight redneck people used to do some good, a lateral release and cut it. And then, you know, that's another reason why the patellar can then go medially. So actually, you know, doing a lateral rector, an accurate lengthening procedure where you still got some stability without suddenly going the other way would you would need to use that to sort of correct it. So, lastly, don't forget about, as I say, the particular articular

surface. So now going through through this sort of decision making process, you know, for me, it's, you know, in terms of, you know, winter to rehab, once you've assessed those kind of six variables, and that's usually getting, you know, appropriate imaging and if the anatomy is generally normal, you know, the, the, the patellar is in a normal position, it's a normal shape. That groove is pretty good. It's sitting nice and century. There's no patella outside, and those are the patients, you know, and they're usually the traumatic or significant blow to the knee. Those are the ones where once it's reduced, you can then get them to weight. Bear, put them through a range of motion, you know, whether you choose to brace or strengthen the VMO muscles, the vascular investor's mediators, and the only sort of contraindication is really if there's articular cartilage damage. You know, so even if you've got all of that, but if the articular cartilage is damaged, you want to address that really early on. Again, as I say, these are younger patients, it will only get worse in the future and predisposed to you know, osteoarthritis, if the, if any of those factors, those six variables are abnormal. Those are the ones where you may want to get an opinion. It's absolutely fine to, you know, you're never going to get a patient even with recurrent disaggregation, sorry with you the first time, just the occasion, but with one of those abnormal variables and say, well, I'm just going to go straight to surgery. That's just not, what's going to happen. You want to rehab them, but you at least want to appreciate, and you want to be able to counsel that patient. I look, you've got these anatomical problems, you know, at least try and address them with your rehabilitation. You know, whether it's using a patella, buttress breeze or a sleeve, or working on specific VMO exercises and make them understand that look, there's a high risk. You know, what you know is not only just about the rehab as to how to avoid this happening again. So the pivoting type of movements and you know, straight leg type rotations and things like that, you want to be able to counsel them, but if it becomes a recurrent problem, second, third, fourth times as the patient, and you've got to remember each time, it just the case as potentially damaging that articular cartilage, then those are the patients where you need to address those, those things in terms of how we address them, just to sort of briefly go, go through some of the things that we do. If the cartilage is damaged in these young patients, we would typically want to try and regenerate new coffees that can be just sort of biologic agents that are total happiness. We try and manage things as best as possible without surgery and just biological therapies such as PRP. But if it's really sort of full thickness defects, like, you know, these slides are showing, then you may want to actually put a cartilage plug in there, take a bit of coffee from somewhere else in a knee. That's not weight bearing. And then put it into that defect to try and reduce that risk of, you know, articular cartilage degeneration, and further arthritis. Can you just explain what PRP is and how it works? So PRP is, is essentially platelet rich plasma. It's taking your whole blood. So it's just a, essentially a you know, just like you'd go for a blood test. And then you use a special syringe where we then put it into a centrifuge and we spin it at around 2000 revolutions a minute for about 15 minutes and essentially separates the blood, the whole blood and the platelets. The platelets are what we consider to kind of healing cells. You know, they're the ones that contain all the growth factors, the cytokines, the mediators. And so essentially what you're doing is siphoning off the platelets, you're then concentrating it. And then you're injecting that back into then the, with the kind of hope and the premise, and obviously the science behind it that you're using those growth factors to stimulate the natural, you know, whether it's cartilage, regeneration, or bone healing or muscle repair or tendonitis peep, probably, you know, your, your own is probably more a failure with sort of muscle tears and tendonitis where it's been very well established, but even for early arthritis, grades one to three, probably it can help. I don't say, you know, it's, it's you know, it can always help, but around 60, 70%, you know, we'll get some sort of improvement in the early, early stages. And there's one other sort of level beyond that. You can do what we call a double spin and break down those platelets to release those growth factors earlier. And that's another option that we had to do. So in terms of how do we address the patella Elsa? So you've got this high riding patella

and the tibial tuberosity trochlear groove distance. It's kind of coming off to the side. We would typically do some sort of osteotomy. This'll be to essentially take the patellar tendon off the tibial tuberosity, and then move it down and potentially move it majorly as you can just do sort of a rotational osteotomy to try and correct that. So there's quite a neat option, too, if you, you know, you can address both the Alto, you know, the high riding patella, bring it down. And also this lateralization, you can put, bring the Patel immediately and then fix it with a couple of screws. Sometimes they screws can become provenance quite often. And, you know, after a year, once we know it's healed, we will take those outs.

Steven Bruce:

I have to say, you make that sound like such a run of the mill operation. I mean, I imagine there must be concerns and considerations that you have in any of that.

Joyti Saxena:

I didn't, I didn't mean to give that impression. I mean, it's definitely, you know, when I look at sort of patellar dislocation, there's kind of three things, you know, once I, once I've gone past that this patient is only suitable for rehab, you've got to think about the actual articular surface. You've got to think about the patella outside and others trying to bring it down and you know how you're going to do that. And obviously there's risks with that. You know, you're counseling this patient all the time. The biggest out of all the procedures is the one that I'm sort of doing come to the next, which is the trochlea plastic. And this is actually where you're having to do an open operation and you're essentially creating a group you're lifting the articular cartilage, so that flattened soldiers, you've lifting it off. You're taking bone away that sort of red area of bone. And then you're basically folding that cartilage down and you've created a group now that is a really significant procedure. Not only it's a big open operation dealing with very young patients. You know, you don't have the luxury of saying, well, okay, look, if it all goes wrong, my plan B would be just to replace that joint. You know, we don't have those options in this age group. And so those are the kinds of procedures where you're definitely, you're, you're discussing with the patient, you know, how much do we want to do? Do we want to correct everything? Or do we want to sort of do some sort of hybrid do sort of, sort of more minimal correction, but without the morbidity of major surgery and that's really the discussion. And some people will say, well, actually I don't want to go through all of these things. What can we do to try and minimize my time in hospital or time recovering and rehabilitation. And we may just do one or two of those things, but essentially between you know, tibial, tuberosity, fixation, trochlear plasty, and the next one that we want to try and see, which is the MPFL reconstruction, which is just literally like a guy wrote. I mean, I always use the example of the telephone, like a sort of a tent on a windy day. It's being held by two types, guy ropes. Nice and equally, if your guiro is sort of tight on one side and Slack on the other side of ten's gonna fall over, same thing with the patella, it's just gonna come off. So here this coming off laterally, we can put a medium guy, right, as it were. We take the hamstring tendons, which were very iffy with taking for ACL surgery and other ligaments, soft tissue surgery, and just plugging it in with a couple of bio composite screws into the patella. One is the FEMA, and you've got a kind of a check reign there. That's probably the most simplest thing can be done through very small incisions, you know, key hole, but isolation, it may not work. So you've got to always say, well, you know, that would be plan a, then you may have to come onto the tibial tuberosity distalization. Then you may have to come onto the trochlear plasty says a stage one, two, three, some people need just stage one. Some people need one, two, and obviously some people may need the full house.

Steven Bruce:

What do you do that? MPFL reconstruction there. Presumably by increasing the, the tension on the medial side, actually, you're also increasing the pressure in the top, in the trochlear groove on you. Does that ever cause problems?

Joyti Saksena:

I mean, that is, is, it's a really good point. You raised Steve. And one of the things we say, particularly with people with this kind of recurrent dislocation is that you can say to that patient, that we're going to, you know, we'll do our best. And almost certainly, you know you know, complications aside, we will stabilize that patella, you know, at some point it will stabilize whether it's with one, two or three of those operations, the issue as you rightly say, is that if that articular cartilage is already damaged, let's say, so the current is Decatur and these cartilage issues haven't been addressed from the outset, then actually that pain, that discomfort, that sort of patella greeting that discomfort going up and downstairs, going from sit to stand, you know, really when you're using your, your, your kneecap and your sort of flex knee position, that may still be the same. I mean, there are things you can still do for that patient, but if the damage is already done, as you correct the problem. Okay. So, I mean, from my point of view, that's, you know, that's what I had in terms of just going on around patellar dislocation. I think that the key takeaway messages for me is that, you know, rehab is always going to be the primary goal here. And even the ones where we do consider surgery, you know, which is going to be probably less than 20% of the patients overall, just the cage. But what you're trying to do is that, that, that statistic that I gave right at the beginning, that 30% of Redis acacias offer first time in kneecap coming out, you want to reduce that statistic and picking up those patients. That's why it's the, you know, the diagnosis, the assessment, knowing when to refer, it is really key because that patient may need something.

Steven Bruce:

Well, not surprisingly, we've had lots and lots of questions coming while you've been talking. Joisey Claire has asked whether you were familiar with the symptom of a leg feeling very cold and numb before being unable to walk and swelling of the knee. She apparently is seeing a patient tomorrow who has patella, Alta and recurrent dislocations as a child, but these are new symptoms and she says, it sounds weird, but if he's coming

Joyti Saksena:

A numb before walking,

Steven Bruce:

Yeah. That apparently is the case. Yeah.

Joyti Saksena:

Yeah. I mean, generally, so if we take both those things, coldness, you know, we all know generally sort of something to do with the vessel, that vessel is basically, it's a vascular link, a numbness quite often it's to do with nerve structures. So this could be a situation where if there is some neurovascular compromise, either from recurrent dislocation or from, you know, if it's an older patient or maybe they've got some you know, vascular vasculopathy then that's, that's possibly the case sometimes not so much in patellar dislocation, but in other sort of, you know, posterior knee compartment problems you can get, whether it's an aneurysm or nodes or pressure on the actual

lives and vessels, which can cause some of those symptoms. So I'd probably be, you know, if that's a recurrent problem it's probably worth doing something as simple as a, as, as a duplex ultrasound scan, just to make sure that the vessels look okay. And probably just a good neurological examination Jonathan's asked whether patella alta is only significant if someone is dislocated the knee does having a high riding patella make you more likely to suffer with knee pain in general? So, I mean, the answer is a little bit yes or no to that without giving a politician answer, I mean, patella Alta per se, predisposes to a kneecap dislocating. And the reason is, is because it's not, it's not, it doesn't sit in the groove. You know, you know, an extension of tell us it's out of the group. As soon as you hit 15, 20 degrees of flexion, it goes into the groove with that sort of J shape kind of tracking comes from lateral and comes back inside. If it's, if the kneecap sitting out, then you've got, you know, it's going to take you maybe 30 degrees of flexion for that to stabilize that kneecap. So therefore now if they have a patellar outset, plus they didn't do a significant kind of twisting and your USIA, you know, your, your foot is planted and your momentum of your body takes you in a different direction. That's where it's more likely to happen. But if you've got patella, Alta, and your kneecaps and not dislocating, then it's not that you then got to address that you can be mindful. Well, look, you know, this is a risk and it'd be worthwhile talking to that patient while your kneecaps are a little bit high. What can we do to try and, you know, strengthen the patellar tendon or, you know, I'm not saying that you can just suddenly change that, but then maybe sort of, you know, for example, if they've had episodes of subluxation or feel it kind of coming out slightly, you may want to consider something like a patella buttress brace for when they're playing sports or something like that. So it's a recognition that, you know, there's a potential problem there, whether there would be indications of this location, for example, painting when squatting with patella at any time. And I guess he means warning signs that patient should be made aware of. Yeah. Is a good point. I mean, I think the issue, obviously in a patient, in a patient with normal anatomy and it's a traumatic event, let's say it's a rugby injury or something like that. Then there won't be really any warning signs, but in those patients where they've had episodes of instability, that sort of Suboxone, they will often come with that story. And often these patients have been telling the same story to their GP and things like that since they were 12, 13, 14 years old, they'd never really dislocated a sub, but then it's suddenly something, you know, maybe they take on ballet, ourselves dancing or something is an event where it suddenly goes. So the warning signs are really this, this episode that sometimes your knees feel, you know, I guess instability is not instability in the same way as a ligament problem, but unique has feel like they're going away, you know, in terms of assessment, if they've got very hyper mobile, patellars, you know, when we talked about that sort of quadrant test, you've got tight written action, but if they're very mobile, then it, again, it may, you know, it's not like they have symptoms from that, but you may be able to pick up sort of signs that they're there in that predisposition group, predisposition group. But I think, you know, in answer to your question is really that they have these episodes where their kneecaps don't feel quite stable. That's a real warning sign.

Steven Bruce:

Okay. Germany's is asked whether dislike, well, when dislocations are best reduced, and I guess this is something which will be of interest to most of the people watching, how should it be done straight away? Is it something that we as osteopaths chiropractors physios can do awards it best done in a

Joyti Saxena:

Yeah, I mean, I think, you know, if you look at guidance, I was just, you know, in preparation for the talk, I was going through the nice guidance. And I'm not saying that's always the best guidance,

but they would say it should be done in a, in a clinical setting. But I think if you're, you know, it's a bit like a shoulder dislocation, isn't it, you know, some people, you know, where it's you know, assuming it's, you know, it's a recurrent dislocation, people know what to do, they kind of do it themselves or, or so the same thing, really with a patella, I think if you're happy enough and you're quick enough and the patients you need to cause obviously they're screaming, agony, the, that the best pain relief is to get up and tell it back in June. So if it's suddenly a bit of a blow from the side and it's, and it snaps back in, sometimes the patients would have done it themselves if they, if they've had it before. Sometimes, you know, with a bit of distraction, I think it's probably worthwhile doing, because that will give them the lyricist form of damage and the quickest resolution of pain. So personally I'll be happy. I think, you know, anyone, you know, I'm sure you've got an experience audience if they were in that situation on the, on the, on the playing field. And it would be the right thing to do. I think, you know, the argument is, is that you, you know, by the time you get that patient to casualty, if someone hasn't recognized and casually, they then get an X Ray, you know, we can be two, three hours down. The line is swells up. It's more painful. You've lost. The patient's trust is a bit harder. Arguably you may have innocent Entonox morphine to help you reduce it. But I would say to that question, yeah. If you, if you have, if you're comfortable and you have the ability, then you have to try and reduce it as soon as you can.

Steven Bruce:

You talked about reducing your show to this location. I guess there's a lot more that can go wrong with the shoulder, this location isn't there it's mechanically. This would seem very simple to reduce.

Joyti Saksena:

Yeah, that's correct. I think, I think you're right. Maybe I've simplified my show to colleagues, but no, you're right. I think I was talking more about sort of these people with the kind of party trick kind of shoulder problems where you know, the Mel Gibson stunt, where he just slammed it against the woman and it goes in, but no, you're right. There's less, less mechanics around that, that knee cap. I think the danger is obviously if you know, someone reduces it, the patient then is happy. They, they probably may not then present a casualty. It may not then get investigated. So I think, you know, it's important if it does happen, then it's really, you need to get the assessment at the very least, get it, get some plain x-rays. But generally my advice is you need to get an MRI scan. You want to know what's happening with the soft tissues. And you want to know, you know, as I say, keep stressing the articular cartilage. That's the biggest problem for that patient, you know, 15, 20 years down the line developing early, early wear and tear, which is something that's potentially could have been prevented.

Steven Bruce:

Selma has asked about children with jumping, for teller that doesn't see centrally when they're sitting with their legs hanging. Is that something you can offer any advice on?

Joyti Saksena:

I'll be honest. My specialty is not, not pediatrics, but I have seen that actually. And I think in the pediatric population is you got to be slightly careful not to over-treat because obviously with growth and people are on that sort of growth curve in, in, you know, different forms of acceleration. It's, you know, it's, it's conscious, you've gotta be conscious not to over-treat I think if it's again, it's that thorough history assessment, you know, some of these patients are prone to this kind of thing of

they've had episodes in the past that should be sort of sending alarm bells and they probably need, you know, the special, you know, pediatric consultant, not necessarily to do surgery, but really just to keep an eye on to give them you know, good advice. And I'm really good at good rehab as well in that, in that sort of scenario. Generally if it's sort of more jumping kneecaps where they they're comfortable with it, you know, the, the key is is that if it's not causing them pain, then generally, you know, it's a ligament laxity problem or just a skeletal maturity problem. And I wouldn't be worrying too much, you know, in that scenario.

Steven Bruce:

Okay. Thank you. This is a question from my team. Nick burns has sent in a question about a unilateral presentation. I need more information if I'm going to ask that question, please. Cause I don't quite understand what's being asked. Nick's also said that a patient of his came off a motorbike and the surgeon cut the she tends towards type of ability and she's had nothing but problems ever since that was 15 years ago. Any thoughts on what would be best for that patient now?

Joyti Saksena:

Say that again. They cut the MPFL did you say, Oh, sorry. I mean, again, the MPFL is one restraint, you know, as I say, it's like, it's the guy rope in the tent and I think if all the other parameters are okay, in other words, she's got a normal groove. The patella there's no significant patella Alto, no significant rotational abnormality then potentially either, you know, Rican either in strengthening the, the the fastest mediators or the medial structures or reconstructing that is, is quite a neat way of doing it. You know, you could just achieve it with just a patella buttress breeze, these kind of braces with that, with a sort of hole and a bit of foam. But it all depends if you're going to have to counsel them on that on a degree of sports in there, it's this kind of pivoting movement that, that kind of can lead to early or recurrent dislocation. But I think, you know, all those parameters are there. Okay. And it's just an isolated MPFL then it would be perfectly reasonable to reconstruct the MPFL. And that's one of my favorite operations because it's very quick, it's very neat. And you can literally rehab that patient straight away. There's no real restrictions afterwards because you're not worried about this, you know, patella kind of Redis the casing.

Steven Bruce:

So it was a precaution, precautionary conservative measures before you opt for surgery, then he saw what do you look at? You look at strengthening the vastus medialis, as you mentioned earlier on you look at foot mechanics and hip mechanics as well to try to address the problem, or do you leave that to the physio?

Joyti Saksena:

It's a really good point because, you know, I think that is where, you know, joined up orthopedics and more holistic orthopedics is really important. And one of the luxuries we have in our group is that we have dedicated foot and ankle surgeons, hip and knee surgeons. And so I would just refer it to those people, but I think, you know, physios osteos chiropractors, they do a far better, better than we do in assessing everyone's, you know, you know, not just from cost stability, but assessing all those individual aspects. If it's, you know, you know, rotational issues, as I'm sure your audience would say that in a really, sometimes most challenging problems, because technically we're taught, well, if something's out of place, you've got to correct it. You've got to correct it anatomically, but how far do you go, you know, in these patients where their, their distal femur is internally rotated,

technically you'd have to do an osteotomy of the femur, turn the femur out and then fix it with a big plate on the outside. That's a huge operation. You're literally breaking that. Patient's being FEMA and resetting it again. That's probably six months off of, you know, you know, maybe move from rehabilitation. So depending on the, if that patient is obviously not just getting too much frequencies and, but you may do a compromise, we may say, well, look, we're going to address part of the problem and accept that we haven't done everything anatomically, but we've saved you the morbidity of, of, you know, going down that sort of big route. And then we would work with our rehab colleagues to address the footprint nation, you know, the femoral anteversion because we're not addressing everything anatomically. So that's really where, you know, that joined up working between, you know, us as clinicians and the rehab team to really get the best outcome for the patient. And I'd love it. You know, when we get to the day where we're sitting with patients and with the teams in front of us, having a joint discussion, as opposed to, well, here's the orthopedic opinion is your, you know, your, your osteopath opinion is your sort of foot and ankle opinion. It's getting that joined up approach.

Steven Bruce:

It's an interesting, I was thinking through the foot mechanics, when you were talking earlier on, of course the most common problem we see is foot premonition, which overpronation, which you just mentioned, which of course was internal rotation of the tibia. Which would, you would think would help to reduce the likelihood of dislocation of the kneecap?

Joyti Saxena:

Well, it's both really. I mean, I think if probation on its own shouldn't have, you know, too much, too much of an issue, but if you've got a malrotation from the proximal femur, and essentially you've compensated by the way down, because as you say, it's not easy to always pick these fences, they walk straight, but actually when you break it down, they've compensated at every level because the hips have not developed properly and they're coming out the distance femur compensated to go in and the distal tibia is compensated to go out and then their feet, you know, compensate to go back in again. So you look at them of the bed, they look straight, but actually that rotations problem. But yeah, I agree if you know, overpronation with internal tibial, torsion has some protection against the patella going out, but it's pro nation with external torsion is the problem.

Steven Bruce:

Yeah. one final question, if I may I don't know who asked this one, but the question is, in what way are hyper mobile people problems or problems if they have surgery, which is something you said earlier on, is it simply the laxity or do they have problems with healing or otherwise?

Joyti Saxena:

Yeah, I mean, it's a bit of both of that actually. I mean, the primary issue is, is that there's, you know, a chemical or a an abnormality with their actual tendon. That's why they have very loose collagen. They're the kind of people that they can sort of pull their necks out to the side, or, you know, very bendy fingers. We use the Peytons in a school for, to assess these patients. But because there's an actual know a problem with the ligaments. So now let's say I'm doing an ACL reconstruction. You know, you know what the laxity of a ligament is, and therefore you do it to a certain tightness here you that, but actually the ligament then stretches out because it's, you know, and you've, you've put them through all of that surgery and that the ligament is not just designed to actually be able to

reconstruct, or let's say your you know, people with sort of LS Dallas, where they have skin issues, where they can, you know, hyper granulate and that can cause, you know, wound issues and that sort of thing. So it's just, it's not that you would never operate, obviously there will be, you know, there's never, never in terms of you know, decision making, but it's just that you would a counsel them a lot. They, you know, a lot of these people have hyperextension of the knees. So now you go and reconstruct some ECL and they're putting stress every time, their knee bends backwards, they're just stretching out ligament out. And if the ligament is abnormal to start with, it's going to stretch with time and within, you know, a year, 18 months or all that sort of search work has been undone. They're all ways to compensate it. We use a lot of work for internal brace, which is an inner elastic polymer alongside the ligament to basically act as a, you know, as the name suggests a belt and braces type thing to reduce that kind of stretch.

Steven Bruce:

Definitely it's time just flashes by on these things. 45 minutes is never enough for all the questions that come in, but I'm really, really grateful for you giving up so much time. Thank you very much. I hope we get to see you again, sometime in the future on one of these shows, will members of your team get you into the studio where we can do some practical demos as well. But as I say, thank you very much for your time today, and I'm sure it's been really beneficial to all of our organs.

Joyti Saksena:

Thank you very much, Stephen. Thank you to the audience for your questions.