Gilmore's Groin and Hernia

with Simon Marsh

21st October 2021

TRANSCRIPT

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Steven Bruce
Today I am talking to consultant groin and hernia surgeon Simon Marsh. Simon is the Surgical Director of the Gilmore Hernia Clinic in London or Gilmore Groin And Hernia Clinic in London. And that is part of the London Sports Injury Clinic as well. So he's got a direct application to injuries which quite often find their way into our own clinics. So what we're going to be talking about today is of direct relevance to the sort of patients that you're likely to see. Now, you trained at Cambridge a long time ago, didn't you? And you are apparently one of the few people to twice win the William Harvey Studentship, which makes you even more brainy than most Cambridge students I imagine.

Simon Marsh
Well, Steven, thank you. Yes, that's slightly embarrassing, and also makes me feel very old. Yeah, it was the surgical side of things that interested me then. And obviously has kept me going since and it was a surgical prize, and I was lucky enough to win it twice. Yeah, I don't think many people have done that. But you know, I'm just an ordinary surgeon, really.

Steven Bruce
Just an ordinary surgeon. I was saying earlier on, before we go on air that, an ordinary day to you is quite extraordinary to most people, the fact that you've got to rush off after this and start carving people's groins. I think you've got three to do this afternoon. You know, it's an unusual day, I imagine in most people's minds. I was going to say as well, you've got an unusual accolade, haven't you, in that Gilmore's Groin that we're going to talk about today has a modified repair technique, which is named after you.

Simon Marsh
It is. Jerry Gilmore who did that and he wanted to get my name on it, bless him. That all came about in 2010. Now, in 2010, I was slightly stupid enough to stand behind a horse who would try to kick me in the head and I got my right arm up instead. My arm got shattered. And that took a couple of operations and five months out. And during that time, Jerry and I spoke to as many people around the world as we could who were doing similar sorts of operations to see what they were doing. And we looked at what they did, and the techniques they used to compare with, like the basic technique that he described, and we just picked a couple of things that we thought would be useful and incorporated them into the standard Gilmore technique. And Jerry decided very kindly that this should be called the Marsh Modification which is what we call it now.

Steven Bruce
Which is so much nicer than having a disease named after you, isn't it?

Simon Marsh
Yes it is.

Steven Bruce
We're going to be talking about Gilmore's Groin particularly and various aspects of how one distinguishes it from other injuries and from hernias and so on. There are a number of slides, which we'll be showing, and there will be a handout issued this afternoon after the show where you'll have all those slides on the handout. So don't worry if you don't catch them all as we go through. I suppose actually, we ought to

warn the audience as well, that one of the slides probably is best shown after the watershed, and if there are any sensitive, particularly young female viewers, then they perhaps ought to not watch for the main picture slide that we have this afternoon. So over to you Simon. I mean, what is Gilmore's Groin?

Simon Marsh
Yes, thank you. And what I'd like to try and do is clear up a lot of confusion about what Gilmore's groin is because as you all know, there are a whole lot of things that can cause pain in the groin, and it can come from the back, it can come from the sacroiliac joints, it can come from the bowel, it can come from ovary pain or testicular pain, or appendicitis or hernias. And just to get this out of the way, Gilmore's groin is not a hernia. A hernia, as was drummed into us when we were medical students, is the protrusion of part or all of a viscous through the wall of the cavity that normally contains that viscous. So with a hernia, you've got a lump and you can push it back and that's fine. And we'll put that to one side. Although we might come back and talk about the best way of fixing hernias these days, particularly with the potential problems with mesh that seems to be arising.

Steven Bruce
I think when we spoke about this before you said, the Gilmore's groin can often be confused with I think other groin strains. But did you also say that it is sometimes confused with a hernia? Which would seem unlikely given what we would expect from hernias?

Simon Marsh
Yes, I think that it's often called a sportsman's hernia, because I think the general public understand that a hernia occurs in the groin. Interestingly, there's still some confusion as to what the groin is. Now to us, the groin is what we call the inguinal region. So it's in the lower part of the abdomen, but a lot of people think the groin is the inside of their thigh, which is not a muscle. So there's still that confusion. But with a hernia you usually see a lump but I appreciate people understand the term hernia. I think probably the best term is actually Gilmore's groin because people understand that. We'll talk about the symptoms and the signs and the specific syndrome of Gilmore's groin. But if you want to be more anatomical about it, then probably the term groin disruption is not a bad one, because it makes you think that the muscles and tendons in the groin are torn, which is basically what we're talking about. So, Gilmore's groin, I think everybody can understand a groin disruption if you want to be more anatomical about it.

Steven Bruce
Okay. So, what sort of people are presenting with this?

Simon Marsh
So it's basically a sporting injury and what you have to remember as we were saying, there's a whole lot of things that cause pain in the groin, and within that set of groin pain, there is a distinct subset of people who will have symptoms and signs and perhaps imaging findings that fit with a Gilmore's groin. And it is basically a sporting injury. And Jerry Gilmore first described it in 1980, when he saw three what were then First Division football as all internationals, who'd all got groin injuries, and hadn't been able to play between four and six months, because of their groin injuries. They'd all had lots of opinions. They'd had X-rays, and CT scans and ultrasound scans and MRIs didn't exist then. And nobody could work out what was going on. And one of them came to see Jerry and Jerry did what we're all taught to do. He listened

to what the symptoms were, he examined the chap and then he thought about it, and actually did an operation because what he found, and we can have a look a bit later at the slide you talked about which shows anatomy quite well. When you examine the groin, compared with the other side, what you find is that the superficial inguinal ring is dilated, there's a lot of tenderness on the posterior wall of inguinal canal. And when they cough, it bulges. Now this is not a hernia because nothing's coming through. But the muscles are weakened or torn if you like, which is why it bulges and each of this sort of lateral leak, which is what he was good at, one of his Maxims was always, think laterally and realise what was going on. When he operated, he could see the tears in the muscles and tendons. And he fixed it anatomically. So no, he didn't mesh this, this is just putting the muscles and tendons back where they should be to restore the normal anatomy of the groin. So it can function again. And the sort of typical symptoms people would get is, you know, for footballers, they'd find they're in pain when they pushed off to sprint, when they were kicking, twisting and turning. And the sort of typical history you would get, would be a chap who played football. And when he played okay, and the next day he's quite stiff and sore, but he recovered just enough to train midweek. And then he was stiff and sore, played at the weekend. And then the stiffness and soreness lasted a bit longer, so he couldn't train midweek. And then he'd find the pain came on during the match. And then he'd have to come off early, and then he couldn't even train. So that's a sort of typical pattern you'd see. And it was that coupled with the examination, and it does involve unfortunately, putting your little finger up the back of somebody's scrotum to get into the abdomen. And it might be this is a good time to put up the post nine o'clock slide that I think we got labeled number three, because it just illustrates the anatomy really well. Because what you sometimes get is quite a lot of bruising. Now, in the sense when someone's bruised, you don't do much, but it does just illustrate the anatomy. And sometimes you can see the curve of the superficial inguinal ring where you examine. And you just need that three dimensional picture of what's going on under the skin in the groin, to get an idea of the anatomy, and it's one of the things that slightly bothers me. I know it doesn't apply to the audience today. But I'm not convinced that anatomy teaching is what it was. And I do worry that people are not getting the full anatomical knowledge that they need to work on the Gilmore's groin these days.

Steven Bruce
You were saying earlier too if anyone recognises this patient, they should keep that information to themselves.

Simon Marsh
If we can share the slide, it is just a premiership footballer and if you do recognise and I think Hello magazine would probably want to hear from you. But it just shows the arc of the superficial inguinal ring and the bruising in the groin. There's a bit of bruising down the leg as well where this chap had an adductor tear. And what we find is that 40% of people who have torn their groin also get an adductor tear. They're different but related, so a Gilmore's groin doesn't involve an adductor problem, but 40% of people do have both. And in some cases, we will fix the groin and also do an adductor release because it's the tightness in the adductor tendon that causes a problem. And if you release that the tendon then will, when it heals, it will heal longer and take away the problem. And Jerry actually produced a drawing, again, based on another premiership footballer, where he marked on this chap where you get the pain from a Gilmore's groin and the pain is right over the superficial inguinal ring in the lower abdomen. And he added that, where you get the pain for the adductor which of course is at the inside of the thighs. It comes on to the pubic bone. And also people who get pain in the hip, well, they feel it in the crease of the groin, so

it's slightly lower down. And again, you hear about this thing called femoroacetabular impingement, you know all about this and some of these people will present with pain in the groin, it can be difficult to work out, which is which. And sometimes you get people with both, you think, well, which one do you deal with first, and I have to admit, we tend to deal with the groin first, because it's easier, whereas hip surgery for impingement is actually quite a big surgery. So we tend to look at the groin first. But it is that combination of the right sort of people. So it tends to be sporting young men, with the right symptoms and the right size we examine and these days the investigation of choice in MRI scan, and we tend to use a 3T scan, which gives us double the resolution. And we know from a study we did a few years ago that in 80% of cases, if you've got the right scanner and the right radiologist, because you've got to have the right team looking at people, in 80% of cases, you will get confirmation of what you think clinically. 20% of cases for some reason it doesn't show and I suspect it is the more common situation in chronic tears where all the information is settled down. And the MRI is not picking up the differences in the tissues because the acute inflammation has gone. So with all things it's the symptoms, the signs and the investigations you do that give you the diagnosis.

Steven Bruce
That slide you showed us, Simon, the margins of the bruising are very, very distinct, very clear. Is that always the case?

Simon Marsh
It is, but usually you have these things called fascial planes. And it's one of the first things we learned about at medical school was all these fascial planes. And they've all got terribly complicated names. I mean, you all know that I almost gave up, because I thought I can't pronounce all those, they're in Latin, I almost went home, but I stuck it out. But it does, it's the fascial planes, it marks out really nicely. It's a living demonstration of the anatomy of the groin. But to say this chap that I actually saw we didn't operate on, he got better because you can't do anything when it's all bruised. You've got all that hematoma in the tissues. And he actually recovered and was back playing again in two months' time anyway, so he didn't actually need an operation.

Steven Bruce
Right. Well, that actually answers one of the questions that's come in, because Jeff was asking whether the bruising was due to the surgery or the injury itself. And obviously it wasn't the surgery in this case.

Simon Marsh
Yeah, no, I do cause bruising as well. I admit that.

Steven Bruce
Yeah. Pip has asked, how you distinguish, how you differentiate groin pain of this nature from a referred pain from the SI or the hip?

Simon Marsh
Yeah, and it can be really difficult, actually. And it is a matter of just remembering there are lots of other causes. You're right, referred pain is one of them. And it's got to fit the pattern, which is why I think we need to come back to remembering that Gilmore's groin is a specific syndrome within the whole group of

groin pains that you see. And if you've got the right sort of person, and it tends to be young fit chaps, it's much less common in ladies because the anatomy of the inguinal region is different. Obviously, men have the spermatic cord that go down to the testicles. So there's a much bigger sort of archway through the external oblique aponeurosis whereas in ladies that's really narrow, because all they have is the round ligament of the uterus. It's much less common in women. You tend not to see it in older people, although I did have a chap, it was quite a few years ago now. He was 78. And he's a retired international tennis player that also I can't mention, but he came in and you know, the thing you really hate, he came and said, I've got the groin, I'm on the operation. And you go okay, right, have you. So I listened to his symptoms. He said, I've got the groin, have I, I want the operation. I said, well, let's just examine you. And I examined him. And he said, I want the operation. I've got the groin. I said, well, yeah, I think you have, but come on, you're 78. And it's just your body telling you to slow down. He said, but I play tennis three times a week and I can't play. I want the operation. And Jerry and I always have this sort of unwritten rule. Don't do it with people under 45, it never works. But this chap was very insistent. And I crossed everything and did the operation, and he did have a torn groin. And he came back for his check up a month later. And he walked in with a little trepidation. I said, you know, how you're feeling? He said, brilliant. I played tennis last week and I'm absolutely fine. At which point I threw the age limit out of the window. And what you are finding now is because people are keeping fitter for longer, you do see it in older people. I think potentially they've got other things as well. And that's the difficulty. And I've seen a chap recently who rides horses for a living and came along and he's probably got a Gilmore's groin, but he's got osteitis pubis, he's got symptoms of a disc prolapse. He's got arthritis in his hips, because you know, these chaps ride horses well into their 60s. He's got everything else going on. And you just think, okay, I could operate on the groin but it's not going to stop your pain because you've got so much else going on. And in fact, we've sent him off to have some other things done, see if some injections will help and see where that leads us. It's very easy for a surgeon to say have an operation but it's not always the right thing. And like any operation, if you pick the right people, you'll get good results. If you don’t, you don't get good results. So it's a matter of just remembering that specific syndrome. If it doesn't fit, then you think about all the other things it could be.

Steven Bruce
Yeah. I thought for a moment back there, you said that the previous philosophy was that the operation never worked on people under 45. But I think you meant over.

Simon Marsh
Over, I beg your pardon. Yes. Thank you for correcting me.

Steven Bruce
No, no, I probably misheard you. Just one question on this. I mean, the bruising on the photograph that we saw a little while ago. I mean, it looks as though that athlete would have known instantly when that injury occurred, because it looks quite serious. Is that always the case? Are they going to say, yeah, I know this happened when I did that particular movement, or can it be less obvious?

Simon Marsh
Yeah, that's a really good question. What we find in about a third of people. There is, as you rightly say, there's a specific injury. And it often used to be the footballer who would go in for a tackle, take their leg

taken out from the side, they'd know instantly, they'd done something because they had to stop and come off. And the next few days, the bruising comes out. In about two thirds of people, it seems to be more of an overuse thing, that you get a little bit of a tear and little bit of a tear and a little bit of a tear. And then the whole thing goes. And this brings us on quite nicely. So I think that the slide that I have called the etiology of Gilmore's groin, which actually is Jerry Gilmore's original slide back from the 80s of how it happened. And he talks about how the hip flexors tilt the pelvis and how the tilted pelvis can't stabilise the abdominal muscles, and you get these micro tears that then become the full Gilmore's groin. It's like the straw that breaks the camel's back. And it's just interesting that I've still got these original slides from Jerry, who, as people know, died a couple years ago now. Because they just give you a real insight into the leap of lateral thinking, he took to realise what was going on, but nobody else had come to that conclusion. It was just to think laterally.

Steven Bruce
And I think that's the philosophy which will chime very well with our audience, you know, primarily of manual therapists who will be looking at all this business of muscle strength and asymmetries and so on. That's what we do. John has sent in a question asking whether you give consideration to pubic asymmetry with or without adductor muscle involvement.

Simon Marsh
Yes, is the answer to that. And we used to do stork X-ray views, where you stand on one leg to look for movement of the pubic symphysis. I have found one case in 25 years, well, that was so marked, we actually sent the chap off to an orthopedic surgeon who put a plate across onto his pelvis, which cured his symptoms. But I've only found one case. So it's not something I do regularly now unless I really can't convince myself something else is going on. So yeah, it does happen, but I think that's quite rare.

Steven Bruce
What about the longer-term outcomes of surgery? Peter has said he once had a very good amateur marathon runner who'd had a Gilmore's groin repair, which was successful, but he ended up having a hip replacement a couple of years later at the age of 41. Of course, that could have been quite coincidental and not related. But is that a likely or common outcome?

Simon Marsh
I think that's probably unrelated. And you're right, we do see this in long distance runners. And what they tend to find, you just find their time start dropping, they can't quite work out why. And this is almost certainly the overuse time that we talked about rather than a specific incident. The other thing I see very commonly in the long-distance runners is they do get the osteitis pubis and the disc degeneration because of all the pounding and the shock that goes through the pelvis at the front. That's the other thing I see. And there is this discussion about whether osteitis pubis is a primary thing on its own, or whether it does relate to for example, the Gilmore's groin where the muscles pull so hard on the pelvis and the tightness that causes it. And I've certainly had a few people who have got Gilmore's groin and you mentioned very kindly. The Marsh modification, one of the things we do is, we actually release the inguinal ligament from the pubic. So take it back, and it will go back about five millimeters. It's really tight. And you wonder whether that causes some of the osteitis pubis and in some cases, I suspect it does. And that's one of the things we took up 10 years ago, while my broken arm was healing, and it does seem to

help. But I suspect there are some people who get true primary osteitis pubis, which is really difficult to treat.

Steven Bruce
So when you say you release it, you just cut it?

Simon Marsh
Yeah, it's exactly right. I do it with electrocautery. So it doesn't bleed. You can feel where it runs onto the pubic tubercle and you just run, you know the diaphragm around it and it just goes back about five millimeters. You can see how tight it is. It also means that when you do the repair, in the old days, the repair was actually stitched to the pubic cubicle which just seemed to cause, a few people have quite a lot of pain afterwards in that area because the ligament comes back five millimeters. The stitch doesn't go into the periosteum over the bone and although I can't give you definite numbers, although I have a big file at home about 1000 cases since 2010, which I haven't had time to go through, my feeling is that doing that just stops the small number of people getting, perhaps persistent inflammation, what we used to call the anchor stitch where it's done, because we used to now and again, go back and remove that stitch from people, just take that away. I just don't see that anymore.

Steven Bruce
Right. Okay, so when someone comes into the clinic, I mean, I imagine if they come in with a groin that looks like the photograph we saw a moment ago, you're probably immediately thinking this is your line of business?

Simon Marsh
Yeah.

Steven Bruce
If it's not quite as obvious, what are the clinical tests that you would use?

Simon Marsh
So, as I said, you take the history and examine them and I always examine people standing up to start with and the first thing you do is you just ask them to point to where the pain is. And as we saw in the other one Jerry Gilmore's slide of the person with the G and the H and the A drawn on them.

Steven Bruce
Justin, can we bring that one up? I don't know if we've shown that one, it was slide four.

Simon Marsh
Yeah, again, this is another premiership footballer Jerry had seen. And he just drew the G for where you feel the pain in Gilmore's groin over the superficial inguinal ring. The A is obviously the adductor the pelvis. And the H is where you get hip pain in the crease of the groin if you like. And so you just ask them say, where does it hurt. And that gives you the first clue because some people will point to the adductor, some people sort of point to the adductor and sort of swing their finger up through the symphyseal disk and into the inguinal canal. And we begin to talk about if you like adductor symphysis inguinal axis

syndrome, which you can make into a syndrome if you like, because they're all connected. But that's the first clue. You know, if they point along the front of their thigh, I think this is not going to be Gilmore's groin, if they run their finger along the hip crease, you think that might be the hip, or the other classic one is what we call the C sign where people stand and they put their hand like that around their waist, and you think well, that's going to be your hip. So that's always the first clue. Well then you check, you stand them up, you feel, you get them to cough, make sure they're know obvious hernias. And then you lie them down. And then the first thing I'll do is wiggle their hips about particularly in flexion and internal rotation to see whether you feel any signs of femoroacetabular impingement . And you didn't get that and as you internally rotate it and flex it and push down, you can feel it and you think, okay, there might be a hip going on as well. One of the best tests I've come across is very simply just with them lying down, just my hands over their thighs, and ask them to do a partial sit up, because when they engage the core muscles, if the groin is torn, you can watch them grimace because they'll feel it and they get pain over the G where you get the Gilmore's groin pain. And I get them, for no particular reason, to push their legs out. And that's a bit of a red herring and then squeeze them together. And if you squeeze hard, you're looking for adductor pain or weakness in the adductors, which we see in 40% of people. And then comes the fun part, because that's when I have to get my little finger out and put it up the back of the scrotum and underneath to get into the superficial inguinal ring to feel it. What you're looking for in somebody with pain on one side is the superficial inguinal ring on the affected side is widened. It's dilated. And usually at this point, they're already swearing at you because it's quite painful. When you then put it backwards, they get pain in the posterior wall of the inguinal canal where the muscles are torn. And when they cough, we said you get this bulge and we said it's not a hernia, it's just a weakness of the muscles allowing the cough impulse to come through. And the trick is to compare that with the normal side. Now obviously, you occasionally get people who've done both sides. And then it's usually very obvious. But you're looking for that set of signs when you examine somebody. And that helps as well. Some people are going to be tender over the adductor origin and some people are going to be tender over the symphyseal disc. And as we said, we often get people with more than one thing wrong with them. So you've got to look for all those things as well.

Steven Bruce
What's the consequence of us missing this? Let's say someone comes in and we say oh, this is not a Gilmore's groin, it doesn't need surgical repair. What might go wrong for the patient?

Simon Marsh
The first thing I would say is that that's not that uncommon, but I completely understand it because it's quite difficult. Although we spend a lot of time going around, doing lectures is why it's really nice to do things like this just to help people understand. I completely also understand why people don't recognise it. I mean, it's not a life-threatening injury. That's the important thing. And what you might find is people who normally do sports or play squash will just not be able to do them, which is a nuisance if they enjoy that but it's not a life changing event. You know, with a professional sportsman it's different. They often come along with their club physiotherapist, with their MRI scan and plonk it down the table and say, operation this week, please. You think okay, well, we still need to go through the symptoms, the signs and the examination and the MRI scan is really important and what I very commonly find is MRI scans done outside of our multidisciplinary team often don't give you the information that you need, and I have to send the disc off to be double read. And they come and say, my MRIs normal, I send it off and it comes

back that it isn't. And we can see the signs of the tear. So we've got to double check everything. If you do the operation on the wrong people, it doesn't work. But for people who are not professional sportsmen and just enjoy life, you know, they might find that they can't enjoy life because they're groin hurts too much. And they'd have to modify their lifestyle and stop doing the things they enjoy. Or, you know, they come via the internet. And they say that I found it, you can you have a look?

Steven Bruce
Yeah. Okay. And so having had the surgery, how long is the recovery time?

Simon Marsh
It'll vary. And in the old days with the professional footballers, it's very much a week 1, 2, 3, 4 recovery, and we have a specific set of exercises we get people to do and we start them fairly quickly. So I do a lot of operations on Thursdays, as you say, and people will start their exercises next Monday, they'll spend the first few days just walking to loosen everything up and start rehab on the Monday. And it used to be week 1, 2, 3, 4 and aim to be playing at four weeks. Now we have to recognise that not everybody's a professional sportsman. So we change that, and we just call it phase 1, 2, 3, 4. Because in some people, the first phase might take them 10 days, second one might take two weeks, and everybody needs to listen to their body and do things in their own time. I think my record is a chap who was a triathlete who had both sides done and was competing again at international level at six weeks. Jerry's record was a former Arsenal footballer who was playing in three weeks. So it can be done. And one of the things we find is the fitter you are before you do it, the quicker you get better, and most of us are not as fit as international athletes. So it will take a bit longer. I also tend to find the older you are, the longer it takes and the longer you've had it, the longer it takes.

Steven Bruce
I guess most of those would apply to pretty much all surgery, wouldn't they?

Simon Marsh
Yeah, I think that's probably fair. Yeah. And I've had, you know, I've had my own operations. I think one of the things I learned is how important it is in terms of not just the surgery, but physiotherapy and so on afterwards, having smashed my right arm, I actually had physiotherapy for a year afterwards. And I realised how important that is. And how important that it's not just the surgery. It's everybody else involved with getting people better. And it's important that it's a multidisciplinary team that we talk about.

Steven Bruce
Yeah, and you work very much as part of a multidisciplinary team, don't you? Whether it's with the London Sports Injury Clinic, or in your own practice, I'm not quite sure. Do you direct the rehab yourself? Or do you leave that to the physios?

Simon Marsh
A lot of people have physios in clubs, I'm very happy to leave it to them, but we always send the exercise sheets for them out to do but professionals obviously they know what to do. We do have Physio Works where there's Johnny Wilson, he's based in the Midlands and he will contact people virtually and help them go through the rehab. We have a specific physiotherapist Janine who comes into the hospital where

we do it and will take people through rehab as well. A lot of people can do it themselves, because they can just put along at their own pace, and that's fine. But if they need help, we've got all these people that we can ask to help us as well. And you're right. It's not just the physios, it's, you know, we've got specialist nurses who work with us who know about what happens after an operation. So when somebody phones up and says, I had an operation a week ago, and it feels like this, is this okay? They know exactly what it's like. And it's even down to the anesthetist in surgery getting the right degree of muscle relaxation, because when you repair the muscles, you've got to be able to move them around. And this is a reason why I don't think you can really repair Gilmore's groin under local anesthetic, because the muscles are not relaxed, and you have to be able to move them to reconstruct them. So all these things are really important and we say the radiologist as well, you've got to have the right radiologist who works with the team, he knows what to look for. Otherwise, you just get a short report saying, no hernia, MRI is normal. And that doesn't help us at all. So you're absolutely right. And whatever condition you have, if you have a team of people looking after somebody, the results will be better.

Steven Bruce
And of the rehab exercises that you mentioned there, is there anything out of the ordinary, is there something we wouldn't necessarily think about in terms of having somebody who's groin has been attacked?

Simon Marsh
No. It's actually relatively straightforward. A lot of it is core stability exercises. And it tends to go through three phases, you've got the mobility phase getting it going again, then you've got the stretching, the increasing strength before you get back to the sport specific exercises. So it tends to run through the four phases. And again, everybody does it in their own time. I think the fit sportsmen do it more quickly, as I say, but it's that mobility, flexibility, strength, then back to sports specific exercise after that before we return to play.

Steven Bruce
And you might have given this already, but what's your success rate on these operations?

Simon Marsh
Right, that's a really good question. And we know, because we've got data since 1981. So we've got 40 years' worth that we get 91% of people back to their pre injury level. Now no operation is a 100%. And if you go and see somebody who says, first of all, I never have complications, or is under 100% successful, I would suggest you go and see somebody else because neither of those things are realistic. That does include a significant number of people who never come back and see us because obviously professional sportsmen, if they're fine, we never see them again. But we count those as people we don't know about. So the true success rate is probably higher than that. But we will say 91%. There are always a small number of people who do not get better. And often that's simply because you haven't got the diagnosis right. There's something else going on. And I'm quite happy to accept that because, as you suggested, it's not always easy to work out what's going on. But I think 91% is fair. 100% just never works.

Steven Bruce
What sort of complications might you have as a result of the operation?

Simon Marsh
I think there are normal complications of any operation, you can get bruising and bleeding and wound infection, which is not common. I had one chap who did it again within six months. And that's because he was in Hong Kong when it was raining, and he ran and slipped for a taxi and his leg went out and he decided to do it twice. It does happen again. And we know that 3% of people over a 10-year period will do it again, we know that. We also know that over a 10-year period 10% will do it on the other side. So we know all these things. We don't normally fix the normal side because nine times out of 10 it's not necessary. So we don't do it. We just wait and see. But we try and make people aware of this in the information we give out. There's a small number of people who just don't seem to get better. That is where the rest of the team comes in and the sports and exercise physicians who will deal with injections and more detailed rehab and so on to try and help. But there aren't a small number who don't and that's a real nuisance for them. And it's disappointing. But I think you have to be realistic and accept that that will always be the case. And it is probably because their pain was not caused by the groin tear or there's something else going on that we just haven't recognised.

Steven Bruce
But 91% is a very, very reassuring, encouraging and yeah, I'd say it's a hell of a statistic. So well done, you, but you are the brains behind the Marsh modification to the Gilmore groin repair. What's the statistic like more generally across the country? Do you know?

Simon Marsh
That's a difficult one, there are lots of people who do. I'm going to put the inverted commas sign up, Gilmore's groin repairs. And some of them seem to do with the lack of understanding what they're doing because I will often see people who come and see me and say for example, I had my hernia repaired six months ago and it still hurts, why is that? I say, oh, a hernia repair, you know, how big was the lump? And they say I didn't have a lump. But I play football. And every time I played, I got pain in my groin. I was stiff and sore for a few days afterwards. And it got to a stage where I couldn't play and so on. And what they've had is a mesh put in their groin, over muscles that are torn. So of course, you've got a mesh over torn muscles, the muscles are still torn and they don't work. And I do rarely go back in and take the mesh out and reconstruct the groin and that's not a common operation. It's not easy and it is difficult to give you exact figures about that because I don't do it that commonly, but my feeling is that will work very well if you pick the right people.

Simon Marsh
So that's the first thing you said which is somewhat less than encouraging is because most people that we see are not going to come to see you personally for their repairs. And clearly, we've got to be alert to the possibility that they may have had a Gilmore's repair for something that wasn't a Gilmore's or vice versa.

Simon Marsh
A Gilmore's is an anatomical repair of muscles and tendons in the groin using stitches that will all dissolve in the end, so you're left with the normal structures. The other thing that I find more than a little frustrating is people who deal with Gilmore's groin and call it a diagnosis of exclusion. By which they mean oh this chap's got groin pain. I can't find out what it is, it must be Gilmore's groin, let's do an operation. Now that,

I mean please forgive me, but I do feel strongly about this, that's the view of somebody who's intellectually destitute, because you do have this specific syndrome. This is what I want to get over, specific syndrome, symptoms, signs, imaging findings that is Gilmore's groin and just to label you know, a 65 year old chap who's overweight and doesn't do much, oh, he's got groin pain. That's Gilmore's groin, Mr. Marsh will cue in with an operation. That just doesn't make sense, and I do see people who come expecting to be cured of their groin pain because they've been told by somebody, you've got groin pain. I don't know what it is, it's Gilmore's groin, go and have an operation and of course I will tell I'm not going to do that and it's not Gilmore's groin. So we've got to get away from that, that everything you don't know about is Gilmore's groin, because there are lots of things called pain in the groin that we don't know about.

Steven Bruce
Quick question about the inguinal ligament again, somebody else's has followed up on what I was saying because again, I'm still curious about this. Adam has said, how far through the inguinal ligament do you cut because presumably you don't detach it completely in order to get that few millimeters difference?

Simon Marsh
You take your diaphragm and you run it from the top of the pubic tubercle down into where it begins to fuse with the adductor tendons. And the whole thing will come back about five millimeters. And what I would say and I'm very happy about it, if anybody wants to come and watch at any state, we could usually arrange that. One of the things I would say that with the pandemic, the number of Gilmore's groin operations I'm doing is not quite as high because people realise they can live with this and don't want to come in for an operation at the moment. And so the numbers are not as high as they used to be. But if people would like to come and watch, perhaps even they could let you know, and you could let me know, if they want to come and watch the operation, I'm very happy for people to come and see and you get a much better idea of what we do. And I think that helps and often with professionals, I'll get the physio deliberately so you must come and watch so they see what's going on and it helps them with the rehab. And it helps them learning about what we do, so delighted if people want to come and watch.

Steven Bruce
How many could you cope with at once?

Simon Marsh
Probably not more than one I'm afraid because restrictions and so on.

Steven Bruce
A quick word if you don't mind about hernias, rather than Gilmore's groin. Claire has asked whether you have a recommended rehab protocol before surgery. So prehab protocol I guess with hernias.

Simon Marsh
Yeah, and we do do that to Gilmore's groins as well. And it's basically really concentrating on core stability to work the core muscles as hard as you can. And again, an example I have with an England fast bowler, who actually was playing, who was 19 at the time, who was playing in the under 19 World Cup, did his groin, we got him pushed hard for two weeks, fixed his groin, and a month later, he was bowling in the

19 World Cup. So the fitter you can get people beforehand, the quicker they just recover. And that will apply the same for true hernias or for the Gilmore's groin.

Steven Bruce
Okay. And I don't know who asked this question. But somebody has asked, what do you recommend for those longer hernias that are visible in the older gentlemen, as they sit up, get off the couch? Should they come in for an investigation or just ignore it?

Simon Marsh
No ignore, because the first thing is that's not a true hernia. That's a thing called divarication of the rectus muscles. I would happily show you mine but I don't want to upset anybody. And as we get older, the rectus muscles will normally part slightly. And you get this longitudinal bulge as you sit up and nothing needs to be done about that, again, you can work on core stability to try and get it less, stop it progressing. But you can't get rid of it when you've got it. And I wouldn't worry about that. You could I suppose go from top to bottom and open everything up and tying it all up. But I wouldn't recommend that. I really wouldn't. It's just part of being less young.

Steven Bruce
Yeah. Okay. Well, that's reassuring for whoever asked that particular question. Kim's asked whether there are any videos available of the operation.

Simon Marsh
There aren't. The difficulty is, because it's an open operation with a relatively small hole is very hard to get a camera in. Somebody has suggested that I get myself a webcam to wear and film one, that is something to think about. There are various pictures that we've got that take you through the stages. And I think the best way, if people want to come and watch as I say I'm very happy. It's just difficult getting people in at the moment. But that is something to think about. Whether I can get myself a GoPro and film somebody's. And if I do, I'll let everybody know, we'll put it on our own website. I want to wait so you can see it. That's not a problem.

Steven Bruce
But presumably, you're filming through a camera, are you're filming as you're carrying out the surgery, are you not?

Simon Marsh
Yeah, that's what I'd be doing. The ones we've tried have been people filming over my shoulder, that just doesn't work, you don't see anything. So I would need to get a GoPro camera and have it in the right place and try and keep my head still, which I'm not very good at, but even then, you know, the hole is, you know, the operation is only through quite a small hole and it's quite hard to see anything. It's different from the laparoscopic surgery where it's on a big screen. And having brought that up. I would point out that, again, some people had laparoscopic surgery for Gilmore's groin. But what you have to remember is Gilmore's groin is a tear of the muscles on the front of the abdomen. So putting a big patch inside it, again, doesn't address the torn muscles on the front and I just don't see the logic of that one.

Steven Bruce
We did have a question earlier on, which I don't think I mentioned. David asked whether there is always bruising with Gilmore's groin.

Simon Marsh
That's actually really uncommon. And if I do see it, I take pictures, I've only got three pictures, that's really rare. And as you rightly said, that's quite a dramatic injury. When that happens, we can usually get that settled down, so most people don't notice anything. You more commonly will get bruising with the adductor tears. And I suspect a lot of people watching will have seen the quiet considerable bruising you get down the thigh when you tear your adductor muscle. And again, there's no reason to do anything about that because what those patients have done, they've done their own adductor release, the tight tendon tears. It will heal back longer, and it will take the tension off itself but that's where you get the really dramatic bruising more commonly is with the adductor tears.

Steven Bruce
I'm sorry I dragged you away from hernias, back to Gilmore's groin again. Before we went on air, you said you could perhaps spend a couple of minutes talking to us about the modern approach to repairing hernias.

Simon Marsh
Yes, and this all comes from the fuss there's been about whether mesh hernia repairs cause chronic pain. Now, there are about 80,000 hernia repairs, I mean pre pandemic repairs in the country, obviously. There are less now and lots of CCGs in the NHS and they are trying to restrict hernia repairs. And previously it was all, people learn how to do this, if you like, with a modified what's called Shouldice technique, the Shouldice clinic in Canada, Edward Shouldice founded it and they repaired hernias anatomically with stitches. And that was how we all learned to do it. That's how I learned to do it, is what was called a surgical registrar in the late 1980s. Now in the mid 90s, this technique that some people heard about called the Lichtenstein technique named after Lichtenstein, it's not from the country, it's the man. And what he did was just put a plastic patch over the hernia and stitch it on top of the muscles. And this became the standard way of doing it in the NHS because it was felt to be easy for an inexperienced surgeon, to have low complication rates, low pain and so on. None of the other bits are true, it perhaps is easier for an inexperienced surgeon because you don't have to understand the anatomy. And this is one of the problems I think we're now seeing. But then you get to the problem of, does it cause chronic pain? And it's the same with the laparoscopic repairs where they just put a very large mesh patch on the inside of the abdomen. And I've seen all sorts of complications from that. And there are a whole long list of complications of laparoscopic surgery which you don't get with surgery from the front. They're all rare, but you don't get them from the front.

Steven Bruce
Are they still being done these mesh repairs?

Simon Marsh
They are and they're still being done, about 15% of hernia repairs are laparoscopic, the vast majority in this country have mesh repairs now. Now, I haven't done a mesh patch repair for over 20 years, so I don't

like them. I have used a thing called a mesh plug. And the thing about the plug is it sits behind the muscle, not in front because it's the front where the nerves are, we can put a plug behind. But I always repair the muscles over the front in an anatomical fashion. And I'm increasingly getting people coming to see me saying, I would like a hernia repair, I want no mesh at all. I say that's fine. That's how I learned to do it. I don't mind. And I wonder whether I perhaps should stop even using the plug. But some people with really big hernias, you just think with a plug behind, not the mesh packs in front, but the plug behind, it just gives you that reduced risk for it to be coming back. So I think it's a compromise. But I think the thing is people need to be aware of potential risks and have a choice of which way to have it done.

Steven Bruce
Final question for you, Simon. We've got about one minute left. At what point would you say, I don't know who sent this in, at what point would you say someone needs surgery for the hernia? What are the criteria?

Simon Marsh
For a hernia? I think if it was getting bigger, if it's causing them symptoms or pain, it needs to be done. The NHS tries not to do hernias, what they call minimally symptomatic hernias. Now the trouble with that is if you have a 75-year-old chap with a minimally symptomatic hernia, when he's 80, it could be quite symptomatic, and by which time you might have a heart attack, so I have a low threshold for repairing them. But what I like to see is a definite lump that you can push back. If it's just pain or even if an ultrasound scan says, oh, there's a little fatty hernia, just be a bit careful. Because it's probably not the hernia causing the pain.

Steven Bruce
Simon, thank you. There's a couple of other questions which have come in, but we are at the end of our time and we're very grateful for you giving up your time. I hope you get some takers for audiences of your surgery.

Simon Marsh
That'll be no problem. I'm very grateful. I enjoy doing these and it helps us let people know what we do and hopefully dispel some of the myths and confusions about what goes on surrounding Gilmore's groin particularly.

Steven Bruce
And also it helps us to distinguish who we need to refer to people like yourself, and I know you've got to rush off to surgery this afternoon. So we're definitely grateful for you joining us today. We've had something like 350 people watching this lunchtime, so a good take up for a lunchtime show. Hope you've enjoyed it.