

Dr. Travis Dekker:

Welcome to the Arthroscopy Association's Arthroscopy Journal Podcast. I'm Dr. Travis Dekker from Eglin Air Force Base. I'll be talking to a dear friend and mentor of mine, Dr. Jonathan Godin. He's a true rising star in the field of sports medicine and he's a recipient of multiple teaching and research awards as he continues to grow and expand his network of reach as both a team physician and mentor now in Vail, Colorado. He's currently a faculty member at The Steadman Clinic in Vail and specializes in shoulder, knee, and hip surgery. I'll be focusing on an article co-authored Dr. Godin and his team evaluating poor outcomes after arthroscopic shoulder stabilization procedures.

Welcome to the podcast, Jon, as I'm super excited and eager to learn more about what triggered you all to dive deep into this specific topic and what to be on the lookout for and how it's now impacted your practice. We'll be reviewing the November 2021 Arthroscopy article titled, Postoperative Stiffness and Pain After Arthroscopic Labral Stabilization, Consider Anchor Arthropathy. Jon, thank you, and congratulations on all your achievements and contributions, and welcome to the podcast.

Dr. Jonathan Godin:

Travis, thanks for the wonderful introduction. It's certainly an honor to be doing this with you, and we go years back and it's always fun to catch up. So I appreciate the invitation as well.

Dr. Travis Dekker:

Well, Jon, let's get it started. Can you start us off with origins of this manuscript? What led you all to really dig into the specific subset of specialized patients?

Dr. Jonathan Godin:

Yeah, of course. This dates back to my time as a fellow at The Steadman Clinic back in 2016, 2017. When I did my first clinical rotation with Matt Provencher, we had a patient come in with anchor arthropathy, and quite frankly, I hadn't really gone through that diagnosis, that process before in residency and so it was something new to me. I always knew it could be possible, but the first time seeing that. And then when I came back for subsequent rotations with him, we had actually, I believe two more that year. And so while we were in the OR treating one or two of those patients, we started talking about how we needed to look up the case series at the clinic to really open people's eyes to this and what to look for on both the clinical level, as well as radiographic so that clinicians can be more attuned to this as a potential source of pain after stabilization surgery.

Dr. Travis Dekker:

Awesome. Well, thanks, Jon. Super interesting what triggers you, and it's amazing how fellowship can really allow you to see just such a broad depth of pathology and can trigger questions and just how the techniques have changed over the years. It's clear that as technology advances, the quality and advancement of the anchors being used in arthroscopic stabilization procedures continues to improve as well. Y'all did a great job of discussing historical implants and how they've related to post-instability arthropathy. From your findings in the cohort of patients, can you comment on the types, rates and symptom onset of arthropathy in all your patients compared to those of the historical implants?

Dr. Jonathan Godin:

Yeah, of course. I don't have any granular data on this. I really don't think many people do. But this paper looked at 14 patients and there were a mix of metallic and PEEK anchors, and really at the time, I

don't believe there were All-Suture included, there may have been one. But what I would say is that the types that we saw are going back to some of the older Mitek metal anchors and the rates were certainly higher with those followed by the PEEK anchors. And I think just a matter of timing of the cohort, we had the lowest with the All-Suture, but I do think that we'll hopefully see this less with All-Suture anchors.

In terms of symptom onset, I think that can be due to the anchor type, but I think it's mostly due to trajectory of the anchor and how proud it might be with respect to the glenoid face. So I think the technique employed at the index procedure is more of an effect on the timing of this than the anchor, but that can certainly play a secondary role in it from what we saw in these patients.

Dr. Travis Dekker:

Yeah, there's been a lot of interesting work done in the journal lately looking at that trajectory and exact placement of the anchor and how that can actually affect the bone stock, which is interesting. And that even how that trajectory can play into these secondary effects continues to show that we're still learning, even though we've been doing shoulder stabilization procedures for decades. It's pretty incredible.

Looking further into your paper, it's clear that the workup for it, that an MRI is indicated. But can you also tell us how y'all accurately use the MRI to identify anchor arthropathy as a source? And also, are you able to distinguish between proud anchor versus that of just permanent knots on MRI that can lead to those secondary cartilage changes?

Dr. Jonathan Godin:

Yeah. We got MRIs, and what I would say is sometimes even the T1 images can be a little bit more helpful to trying to evaluate where that anchor is, the position is with respect to the glenoid cartilage. I think you also have to look at the kissing lesion on the humeral head to see if you can identify some stripe wear present there and then looking at your T2s for any loose bodies. Obviously, you'll be able to evaluate if the labrum perhaps ever healed, or if it's re-torn.

Then distinguishing between the anchor themselves and prominent knots, that is going to be again, looking more so within the actual glenoid bone stock if that anchor seems to be proud or stuck to the cartilage. And if it doesn't appear to be, then that's more likely a source of the knot stack that's irritating that patient. That was less of an issue in this cohort than the actual anchors themselves.

I get a CT scan on all suspected anchor arthropathy patients now. And so I've found that to be helpful to really assess with better delineation than the MRI, the trajectory of the anchor and where it may be proud on the face of the glenoid. And so I use that to see if it completely comes through the bone stock on the face, and I'm more concerned about the actual anchor. And if it doesn't, then I'm thinking more so than knot stack to kind of go back to your specific question there.

Dr. Travis Dekker:

Gotcha. Maybe at the end of the day, it doesn't matter. You're going in to revise the patient and fix them anyway, but that's interesting to go through the process of what you're specifically looking at in order to clue you in. And back to physical exam, when you're evaluating them do you see a common theme in terms of specific complaints that clue you all into the fact that it's antipathy that's specifically leading to their symptoms?

Dr. Jonathan Godin:

Yeah, definitely. I think you start with the history. And looking at the paper, 100% of people came in with pain. And so Travis, the first thing you have to say is, these are people who either never had an improvement in their pain or their pain got worse. And so a lot of times instability patients, they're coming in with apprehension, subjective and/or objective instability, and then they get pain from the instability event, but it goes away. That's different when these anchor arthropathy patients afterwards, they'll say, "You know, it feels maybe a little bit more stable, but it just hurts more," and that just doesn't get better over time or it's getting worse over time. The other thing that they'll complain of is, second most common aside from pain is tightness. They'll just feel like they really never regained the range of motion.

And so with those two, if I'm evaluating somebody, you always have to have a [inaudible 00:08:13] acnes indolent infection in the back of your mind, I think. You always have to worry about adhesive capsulitis. And then this has to, I think, be on your radar. And if you look at the timeframe of these, patients were coming in within a couple months to up to over a decade out. And so adhesive capsulitis is usually going to be more acute. And if they're able to work through that and then subsequently develop pain, you're going to be thinking more of suture anchor arthropathy. And then if the, again, with infection, if you get out of that acute postoperative period, it's going to be less likely on your radar. And so that's kind of how I go through it.

Some of the other things I'll complain about would be mechanical symptoms, clicking, they feel like it catches. And then I've seen an interesting mix of it. I've had a couple of my own patients in my, I'm now my fifth year practice. And they would have this interesting juxtaposition of saying their shoulder felt tight, but it also feels like they can't trust it and it's loose again. And so that's the combination of, I think scar tissue and some of the cartilage wear. And if the labrum retears, they have some element of apprehension. So it's kind of this interesting combination, but I think you always have to rule out infection and then make sure it's not just simply adhesive capsulitis. But I think that tends to happen more in the early stages after surgery. And if you work it up and that doesn't get better over time, then you have to start thinking about anchor arthropathy.

Dr. Travis Dekker:

Yeah. go back to what any of our mentors taught us at Duke was, if you listen to the patient 90% of the time, they're going to already just tell you what's wrong. And it seems like this one is a big one, especially if you're clued out of that immediate postop infection timeframe that this could be a big cause of secondary symptoms.

Dr. Jonathan Godin:

Exactly.

Dr. Travis Dekker:

As with any instability procedure, implants can have a devastating effect on the shoulder if they're not working as intended. Can you comment on that delay to presentation and why you think there is maybe a delay between symptom onset evaluation and then even surgical intervention? Because I found it interesting that, and maybe it was just lack of awareness and understanding of this as a pathology as a problem. But the time to where the patient actually started feeling the issue to where they finally were fixed was pretty delayed.

Dr. Jonathan Godin:

Yeah. I think that's a great point. And I think you hit the biggest issue and that's just lack of awareness. And that was the main reason why we wanted to get this larger case series out. There's been some case reports that we note in the discussion of it, but it's really to raise awareness to our colleagues. So I think people come back and, again, they go through this acute period and trying to get the range of motion back and maybe you're thinking that they just have some stiffness and you try to work through it. And so really no imaging is done, because you're trying to give it more time with PT. Maybe they get some labs if they're worried about an infection, but then subsequently you get the imaging and the labrum looks okay. And you say, well, these are usually young people, so the rotator cuff's probably fine. I think the biggest clue is going to then be some of the cartilage wear and tear.

And so I think just not understanding that this is an etiology can be the main issue that leads to the delayed presentation. And the other thing is a minority of our patients had to have recurrent stabilization procedures, but their initial symptoms are sometimes improved and they have different ones. And so I think we always have this bias of not wanting to have any issues with our patients postoperatively. And so maybe burying your head in the sand may be an issue here at play as well, in my opinion.

So I think once they're then presenting to our clinic, you could see that about at 70% of the time they're able to get in within eight weeks to have the revision procedure. And so I think, again, awareness is key there for people who may be seeing this, whether it's the operating surgeon from the index procedure or a different surgeon, to make sure that the appropriate imaging is obtained. Again, for me, that would be both an MRI and a CT. And just the history and physical really give it away the vast majority of the time. Then to get these patients, I think you have to go as quickly as possible because each day that passes, they just have more and more risk to the cartilage in their shoulder and have a higher need or risk of needing an arthroplasty down the road.

Dr. Travis Dekker:

Well, I can't thank you enough for going through stepwise how and why you do things. Because obviously if the only way for us to get better at it is having an awareness of these secondary consequences. And so thank you for kind of teaching us about those unintended consequences, despite some of the best efforts that we put forward. Can you tell us how this paper and this study has impacted your practice? Not necessarily now, since you've really taught us about that identification of the pathology. But perhaps how you've moved forward in your practice. You've already mentioned trajectory of the implants and how you put them in, but maybe also the type of implants you use and do you modify them based off of index or revision procedures? Just would love to hear your comments, especially with the advancement of technology and everything, perhaps what you've been doing to help modify your practice and maybe mitigate some of these risks.

Dr. Jonathan Godin:

Yeah, of course. So again, I think just the awareness clinically has helped me to assess this in patients after stabilization procedure. But then in terms of technical points and some of the things I do. For index, I do all my instability cases lateral. And then I think I have a lower threshold because of knowing about the potential sequelae of anchor arthropathy to get the best trajectory possible to using accessory portals.

And I definitely try to employ curved guides whenever possible. I still do a mix of PEEK in All-Suture anchors, obviously no metal. And so doing that and using a combination of down to about a 1.8 up to a 2.4 millimeter implant, trying to keep them as a low profile as possible. I think just your

trajectory and the material used in the anchor, I think are the two biggest factors for developing this. And so that's what I've been trying to get around.

And then for revision cases, I think it's similar. If you're worried about bone stock, I'll up-size on the All-Suture anchor to a larger one if need be. And then obviously if there's even 10% or more bone loss, going to a bony augmentation procedure instead.

Dr. Travis Dekker:

Well, Jon, love chatting with you, love to catching up with you and hearing about your work. The fellows are extremely lucky to have you as a mentor out there as an up and coming surgeon. And I really am grateful for the time that you've taken out of your schedule today to talk with us. I know you're still in the depths of the end of ski season out there as you guys continue to get pounded with snow, which is just awesome and the injuries that come, especially at this time of year as folks are getting into the flats and then destroying themselves.

So thank you for talking us through your thought process, your workup diagnosis, and how you've modified your practice. Thanks once again, Jon, for your insight and all your help as you continue to lead the way.

Dr. Jonathan Godin:

Thanks, Travis, appreciate the invitation and look forward to talking to you soon.

Dr. Travis Dekker:

And so Dr. Godin's Arthroscopy article entitled Postoperative Stiffness and Pain After Arthroscopic Labrum Stabilization, Consider Anchor Arthropathy was published in November 2021 and currently can be accessed at [www.arthroscopyjournal.org](http://www.arthroscopyjournal.org). And the views expressed in this podcast do not necessarily represent the views of the Arthroscopy Association or the arthroscopy Journal, nor are they meant to be used as treatment recommendations for patients. Thank you all for joining us and have a great rest of your day.

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