Shoulder Pain, Rotator Cuff Injuries & Regenerative Treatments with Exosomes Transcript

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Podcast Introduction and Shoulder Webinar Overview

Hey there, welcome to the Recharged Biomedical Podcast. I'm Dr. Edward Park, and if you're curious about regenerative medicine, you've come to Hi, everybody.

This is Dr. Ed Park. We're doing a provider webinar, and we're going to talk about shoulder treatments today. So without further ado, we should say as a disclaimer, MSD exosomes are being constantly used from the day you're born until when you die by your body, but it's not FDA approved.

The exostomes we use are from a newborn baby placenta stem cell. And I use the Chimera brand. I think it's a good brand, this is an old slide. The new product is called Luxir and the numbers are in billions.

This often comes up, but they're in billion and a lot of people talk about trillions. Even Chimaera talks about Trillions now. So shoulders are always hurting.

If you MRI people in their seventies, the majority of them have some disconnected shoulder tendons. So it's not that the pain goes away and you're okay, just that it is no longer connected.

You see this if they have asymptomatic MRI scans. 70% of people do experience shoulder pain. In half of the them, it persists longer than 12 months. What's at work here?

Well, diagram above for my book. Shows that I believe telomere erosion from cell copying causes stem cell death and it causes shoulder problems over the long term.

Shoulder Anatomy and Common Causes of Pain

Posture, like modern day, leading forward. We just interviewed a patient who has neck problems from leaning forward, of course, lack of exercise, weakness in the rotator cuff muscles, injury, but aging is the final common denominator, which depletes our stem cells.

The last two weeks I've had neurogenic shoulder pain for the first time in my life. Boo. I had some hunching over and some tightness in the neck and I let a chiropractor twist it suddenly.

indicating according to the dermatome chart, C5 or C6 probably, the disc is bulging. So if we do this to test, we can push down on a person's head, and if it causes shoulder pain radiating down the arm, We can be pretty sure that it is a nerve root.

The shoulders are defined as the pectoral girdle, right? So the upper extremities, The pelvic girdles below the lower extremity. And centrally we have the blue axial skeleton, which is consisting of the skull, the vertebral bodies and the ribs protecting our visceral organs.

It's mainly comprised of the upper arm, of course the humerus, the clavicle or the collarbone, and then the scapula which is this beautiful complicated shoulder blade.

The muscles of the shoulders are the big ones for heavy lifting, like the trapezius for trapezitis and the deltoid and latissimus. And the fine muscles are often the ones that are injured.

These are considered like postural muscles. They keep the shoulder in the socket nicely. Those are supraspinatus, meaning the one above the spine. You can see the spines in back of scapula.

Infraspinatus. Deuterium minor and major, which are below that. And then in the inside scalp portion, we see this on the left, the subscapularis. So that's the one, if you put your hand on your back, like you're being handcuffed to try and lift off your bag.

That will hurt. The other ones are for not internal, but external rotation, which we'll see. So you have these strong muscles, the pectoralis major inserts on the top of the humerus.

But also deeper is that we have the cracobrachialis and then the bicep. These are all important muscles. Strengthening muscles of this shoulder joint per se.

We have bursa throughout our bodies. Those are gel packs. They cushion the movement of tendons and such. And so you see above me the knee bursa. Also in the shoulders, you have the shoulder borsa.

And, so, the common site of treatment with Anita will do on our husband is the subacromial balsa. The subachromia area, as you can see from this diagram, is the area below the acromioclavicular joint.

Rotator Cuff, Bursa, and Impingement

It's not a joint per se. And it is and it isn't. Its two bones joined by a ligament, not by cartilaginous plates like a ball and socket joint, per say.

So yeah, the shoulders are quite complex and multipurpose organ with bursa underneath. A common complaint is impingement, which you can elicit by having the person lift their arm up like this gentleman above or across.

And what that means is the space between the joint and the subacroma area is in pinched. It can often be from a spur, inflammation in this area, and that will cause the, the spaces to narrow and pain to be elicited.

So again, we're going to inject in that inflamed bursa to my left. That purple thing is red and that subacromial bursa is where the pain and inflammation is.

And that's where. The rotator cuff tendons pass through. the acromioclavicular joint is, as I said, ligamentous attachment through that hook, the end of the scapula and the collarbone.

And this is often affected in people for various reasons. So there's three points of pathology. The MRI, if they do one, will comment on tendinopathy or tendinosus, the AC joint, and the glenohumeral joint or shoulder joint itself per se.

If you have a person separate a band or, you know, do that with their hands, then you will see that there's pain elicit at that one spot. And the acrylamid clavicular joint feels like a little chicken.

It's a soft spot, but you can always feel it. But it's an important landmark when we get to injecting. the shoulder. So the glenohumeral joint is often worn out.

You can see above me on this radiograph that the space or the black area was very narrow and that's because you have arthritis. The bone produced from the cartilage is weakened through stem cell attrition and you can get three signs.

There are subendochondral cysts or just cyst in the bone. That can be bone spurs or outcroppings. And you get erosion of the carotid or that black space there.

And that's where we're all headed. One specific tear is called the slab tear. And there's the bank heart tear, these are tears of where the bicep tendon, there biceps has two heads, one attaches in the front to the coracoid bump or process.

The other one goes into the actual glenofumeral joint and attaches at 12 o'clock. So if you tear that off, that's called

a slap injury. And we do have some success treating that.

You can elicit this pain by having the person do the thing that you're seeing out there and having them lift and that will elicit pain. The glenohumeral ligaments form the capsule, which is watertight and this makes the joint the join, along with the other ligament.

So you can see a cross section to my left. you could see that there are all these joints and tendons coming in. to form the capsule and that's where you want to inject your exosomes.

If you're treating the glen or humo joint per se, you can also see that at 12 o'clock that tendon is attaching as well. To assess for shoulder instability, do what's called a drawer test.

The patient lies down and then you lift up, push down, and if there's apprehension or guarding, You can see the shoulder is unstable and this is indicative of a problem with the tightness of it.

People who are prone to dislocation can have that. If you want to test for multi-directional instability, you pull down on the arm.

Instability, Frozen Shoulder, and Exam Maneuvers

And if you see a sulcus sign shown to my left, like there's a gap there, that means that that humerus is not seated well and you have excessive mobility or what they call MDI, multi directional instability.

This would be typical in the person with chronic recurring dislocations. One thing that people have is shoulder adhesive capsulitis. If you have prolonged immobilization after like breast cancer treatment and drainage or an arm injury, this immobility can cause adhesive capsulitis.

So all those ligaments around the joint get fibrotic and painful. Interestingly, placebo versus steroids, there's no real difference. It takes at least two months to go away usually.

It can be associated with diabetes, thyroid disorder, immobility, inflammation, they need to fibrosis. And I'm dying to try it exosomes on this condition because I think it would help a lot, even systemically, but preferably in the adhesive capsulitis.

So if we look at the bones and the deep rotators of the shoulder, what we see again to reiterate is the humerus, the clavicle and scapula. We got those major muscles, that supra, infra and subscap in front to do internal rotation.

And we see that it is a joint that is watertight in most cases. So these are really where the rubber meets the road. If you want to test the subscap, that's that anterior muscle that causes internal rotation.

You put the hand behind the back like they're being handcuffed and ask them to lift off. And if that lift-off causes pain, then you know it's a subscape and it often at the point of insertion.

This is the only shoulder injection I've given myself because of the excess. So you can treat it really on the insertion, arguably the subacromial bursa doesn't really get that.

So, you want to treat right here on anterior. I got this from doing upward facing dogs and yoga. If you have the person with their fist at waist height and then externally rotate it.

That will elicit pain if you have the infraspinatus injury. This is the second of the major rotator cuff. And you know exactly where that is. When you do a subacromial burst injection, that's what you're treating as well.

Thirdly, probably most commonly is, the supraspinatus or the one above the spine. You do this by having them empty a can like this, and then have them lift up against resistance.

That would cause pain in the supraspinatis. Oftentimes the MRI will show tendinosis in this. in this area. So treatments, if you're in the exosome provider course, you'll see me demonstrate the treatments.

There's also one sheet for all the supplies and steps that we do. You can see my exotome video 5 where I talk about the difference between steroids and prolotherapy or PRP.

Basically, the only treatment people have is time. Within time, hopefully your own stem cells and exosomes will heal it. Oftentimes it doesn't. If you have bone spurs, then you should probably consider shaving them off.

This is getting recurrent injury to the rotator cuff. And then the final thing is shoulder replacement, which is not an easy surgery, but it is doable.

And there's three variations showing their total shoulder. We're just replacing the, the humerus and then doing a reverse TSR, Which has a kind of a fancy flat cup at the top.

But anyway, from the MRI, the ultrasound will show anisotropy, which means differing densities if there's tendinosis. And the approach, again, there are only two things you need to do.

Well, three things. You're doing the exam for your three rotator cuffs. I like to kind of feel and listen to hear if is there any cracking when I rotate the shoulder passively.

Injection Landmarks, Technique, and Safety

And you can often hear this crepitance in the joint or even at the AC, you could feel the vibration at a chromium cubicular. So the landmarks will be our point of entry for both injections, both the joints and the subacromial, is that sort of the lateral march where the spine hooks.

Right at finger breath below and inside the edge of that hook is where we're entering the needle. Then we want to mark two other landmarks with the surgical pen.

One is that little chiclet soft depression where the chromocollicular joint is. And the other is the coracoid process where if you have the patient curl, you can feel the muscle attaching to the bone there.

So if your injecting the shoulder joint per se, You go in from that edge of the hook, just under it, and you aim towards the chest, the corecoid, And you'll hit the bones every time safely.

No risk of pneumothorax. If you're going for the subacromial bursa, AKA the supraspinatus infraspinatus tendon, then you want to aim just a centimeter and a half, I would say deep to the supracromio borsa, but enter at the same point on a more vertical trajectory.

And you should eyeball this from the side and kind of get a mental picture of how deep and how far to go. Oftentimes when I inject this, the area just ever so slightly moving the needle to disperse it.

And then I'll even inject a tiny bit on the needle track to help the muscles that I've traumatized going through. So again, we're going to do our clinical exam.

We're gonna mark the AC and the coracoid. we are going go just lateral or just underneath the edge where it turns. And you can see the video demo of this.

When numb the skin, We use a 3.5 inch, 25 gauge spinal needle, which is my bread and butter go-to. And it's pretty atraumatic. And this diagram above shows that we really don't want to be approaching the front of the neck or shoulders because there's a lot of plumbing that goes through their nerves, arteries, veins.

That's tire country. Stay away. But if we come from the rear, we're pretty safe. Of course, FDA does not approve of these, even though you're using them all the time.

I would say about 70% of time we get good results. These are a few cases. One of very first patients I had seven years ago was an airline pilot. He had a rotator cuff injury and it got better 50%. And I said, I'm so sorry, it didn't work.

He said no, just need to do another. And indeed the other 50% was from his second injection. One famous actor from the eighties had bilateral subscapular pain and that really got after his injection and then.

Another friend of mine fell while skiing and, you know, so basically the theme is it tends to work if you give it time. One of the worst cases I had was a very strong weightlifter, 50, maybe two years old.

And he said, doc, I feel like I'm 18 again. He kept on bench pressing his personal max. and they injured something else. So when the pain goes away from these treatments, you have to be very careful to warn them that it give it almost up to eight weeks to fully heal.

Here's an old, old picture of my son on Ernest Hemingway's shoulders at a wax museum, and it's just in keeping with the shoulder theme. I want you to sign up for the clinical exosomes masterclass.

You get a never expiring credit for a full tuition amount to try exostomes on yourself, on your husband, in Anita's case. And you could sign up for this master class list and we'll do these monthly webinars, demonstrating, discussing different treatments and sharing our knowledge.

That you can signup at rechargebiomedical.com slash providers underscore sign-up. And there's a video at tinyurl slash shoulder XO kind of talking about what we talked about today.

If you're a course member, you can also see the videos and the one page cheat sheets with all the supplies and steps. I think that's good resource too.

So I'm going to go ahead and stop sharing and see if there are any questions.

Clinical Outcomes, Recovery, and Patient Advice

Feel free to. I have a question. Yes, ma'am. Go ahead. How much should you use in the shoulder injection? Like how much exosomes? That's a great question.

So, you know, in general, it's the question of volume, right? So if you put a lot of volumes, and you kind of disrupt the tissues, that's not so great.

And so whenever I'm doing joints, I don't like to put out a volume in there, because that can be a mechanical irritant. I'll use the triple strength that the patient can afford it.

It's three times the exosomes. If I do a shoulder joint per se, then I use one cc of the Triple Strength. If I'm doing a subacrominal bursa, oftentimes it's multiple areas.

And I think the sub-acron burst can handle one to two CCs. If they can afford the triple strength, great. It's not even the one-to-two can often get the job done, but you got to give it, you know, three to six weeks to really kind of recover and have them limit their activity.

But yeah, if you're talking about, I just did a friend's gastrocnemius. I mean, he took a full like three, four CCs into the calf muscle, but there are multiple sites of injection.

And, and so the same would be for a knee. You wouldn't put five CC's. No, too much volume. Maybe at max two CCS of triple strength should be more than adequate.

But for your husband as a shoulder, you could do regular strength. You do one or two CCs just in that subacromial bursa. That should do it. Okay. Well, I wanted to tell you one, my first knee that I did, well you helped me through it,

it was a while back.

And then I told him, after I talked with you, don't do anything, right? Limit your activities because he's an avid bike rider. So he was very good about not riding bike or anything for six weeks.

Now it's been about nine months and he said it is better than ever. That's awesome. Yeah. You got to be careful because the natural thing is when your body feels no pain, it thinks there's no risk of injury.

But the problem is that the type of collagen that's made in the initial healing is not the permanent strong type. So yeah, that's really our biggest concern is the pain will go away from these areas that have aged for years.

And then people won't listen to you. I had one guy, I told him not to do so many pushups. It was doing 500 a day. We treated his shoulders. He calls me in 10 days because I did a thousand push-ups excess muscle around that he got away with it.

But if you're. Like most people, you know, it's an injured organ that you got to be really careful advising them because they don't believe you and their body is their ultimate guide.

They're like, oh, no pain that I must be fine. I'm going to go do my personal best. Like that actor guy, he did three hours of beach volleyball when I did his knees and he ended up injuring them really bad.

So that's something that people really have to get drilled in that just because the pain's going away, It's still not healed.

Q&A on Dosing and Treatment Volume

Okay. All right. Well, let us know when you need to order and we'll get your husband all fixed up. Okay. And I, um, I've been enjoying your book too. Oh, thank you.

Exosome songs. I commute, you know, so I listen, but I have a book on tape. Yeah. So I mean, the sound of my voice, if you can tolerate it, then I think it's great.

Thank you, Adida. Well, okay. So let's get on board. Yeah, please go. Do you ever have like, you know, like you buy so many and you get another one, You know a discount one like that.

I would say twice a year they run specials like. You buy five, get one free, but in general, not so much. Okay. I was just wondering if they occur very often?

Not often. Okay. Well, thank you very much. Okay, we'll see you next time. Bye bye. All right. Thanks for tuning in. Uh, this is a kind of a brief review of shoulders.

Again, on my YouTube channel, there's plenty of resources for people and we have a provider training series as well. So you can avail yourself of that and please consider joining the online training course, self-directed learning.

It's about 12 hours, 130 questions, and we're probably going to add the autism module really soon by the world renowned Dr. Armin Nikugoshin. So that'll be interesting as well.

All right. Thanks for tuning in, Dr Ed Park, Recharged Biomedical Podcast. And we'll see you soon. The training is www.rechargedbiomedical.com slash masterclass.

Closing Remarks and Course Promotion

Many clinicians are getting interested in exosome therapy and they hesitate for good reason. Questions like, does this work? What forms do I need? How much should I charge?

how do i stay out of trouble? All these questions are addressed in my online course. That's why I created it to help you get started. The online course is your permanent turnkey resource to get started either treating yourself, friends and family, or to expand your practice and help more people, as well as increase your revenue.

Thanks for tuning into the Recharged Biomedical Podcast. If today's episode got you thinking, you'll love my book, Exosomes, Songs of Healing. It's packed with cool analogies, full color illustrations, and all the science you need to understand how exosome are changing the game in aging and regenerative medicine.

You can grab it in paperback, ebook, or audiobook, whatever works for you. Now head over to www.rechargebiomechanical.com to check it out. And don't forget to like and subscribe so you never miss another episode.

See you next time.