Electroacupuncture and the Brain: What the Science Shows Transcript

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Introduction to Electroacupuncture

You see the GB34, the peroneal nerve that's on the outside of the leg, goes up to the sacral plexus. The tibial nerve at spleen six, that is one that we use a lot these days. There were a couple of really powerful studies that came out fairly recently showing the power of doing electro acupuncture on the tibial nerve to correct overactive bladder and to stop urination when you didn't want it. basically when you sneezed or coughed. And so these are all stimulating very, very important points. Microcurrent versus millicurrent. So when you're using electroacupuncture, use microcurrent. That's very, very, very, very low current for the generalized tissue healing. Use millicurrent for motor point treatments and usually millicurrent for central nervous system and plexus involvement. Hi, and welcome to The Balancing Point. I'm Dr. John Needers, and I'm here to make traditional Chinese medicine, functional medicine, and integrative health simple, practical, and fun, so you can restore balance, boost vitality, and enjoy a healthier life every single day. Hi there, this is Dr. John, back with another episode of The Balancing Point. Now today's episode's a little bit different. It's a little longer than a lot of the ones that we do. You can play at one and a half speed.

Podcast Intro and Episode Overview

I think you would lose very little there. This is a redo of a presentation that I did at the Commonwealth Club of California several years ago. I'm doing it because it's actually the most popular presentation I ever gave, at least in the number of patients and people that responded to it. It was not one of my favorite presentations, but they found it very useful. And so, I'm going to take you through that because it was not recorded in video on the Commonwealth Club. So let's go ahead and take a little look through the brain. Okay. So we're going to look at electroacupuncture and the treatment of many different neurodegenerative conditions and brain trauma. All of those it's effective for, and there's massive, massive amounts of evidence for its effectiveness.

I'm going to talk about. things that are not taught in acupuncture school. I had to go out and really learn this on my own by studying with some brilliant, brilliant people in this field. And probably 99 % of medical doctors are unaware of how effective this can be.

And it's not theoretical, it's not new age, it's supported by massive amounts of solid, solid science. So a little historical perspective, some of you may not be familiar with acupuncture at all, which is quite reasonable. Acupuncture was a fully developed system of medical treatment over 2000 years ago. Think about that. Not only that, actually, when you go back into the history, there's a great book called the genius of China, where he went back through some of the medical discoveries. They were doing vaccination for measles over a thousand years ago. They had completely drawn out the, the vascular system, cardiovascular system.

Acupuncture History and Ancient Evidence

about 2000 years ago, which is about 1500 years before it was mapped out from a Western medical perspective. So these people really had something going on. The Wangví Né Jíng, which is the yellow emperor's classic of medicine, described acupuncture theory and point usage somewhere between 1000, 2000 and 2500 years ago. And it is, has been the standard of medicine in Southeast Asia. So to change a little bit here, approach, Uzi, the ice man, the guy that was found buried in the snow of the Italian Alps, finally figured out that he'd been murdered. They found an arrow point that would have severed one of his arteries, but he was murdered about 6,000 years ago. Now I went to the Smithsonian, took my son and showed him the exhibit there of Uzi.

And you could see clearly that, and they talked about it in the information at the Smithsonian. that he was confirmed to have tattoos on the acupoints. That's where you put the needles in for his medical conditions. They fit perfectly when they examined him. And he had two tattoo lines for the acupuncture meridians. This is pretty amazing. This is stuff that was supposed to have been invented in China about 2000 years ago. And Utsi was already being worked on with probably not needles. They weren't that good at their metallurgy at that point. But

something, maybe burning hot herbs over that, that's a very common practice to this day in Chinese medicine. massage, maybe pressing on it with rocks. We don't know, but we do know that they knew the system. And from a historical perspective, Ayurvedic medicine in India had discovered this energetic system at least 5,000 years ago. Someone told me, I haven't confirmed it, that the Mayans called it the wind in the channels. Incas called them the rivers of light. That's my favorite because it's more what I feel in my own body when these are stimulated. And the reason so many cultures discovered them, they didn't create them, they discovered them, is because they're real. In the West, we call them nerves, right? Now there's a lot of arguments about how acupuncture works and the problem is they're mostly accurate.

It has many, many, many different. modes of action, terms of balancing the body, opening areas that are blocked, et cetera. But we're going to look today into the nervous system.

Now, the history of electroacupuncture, German fellow named Voll did over 10,000 studies with electroacupuncture. Beijing in the 1950s, brilliant. Dr. Han. So what he did was insanely brilliant.

What he did was They took two mice and the way they checked for pain sensitivity, I don't know if they still do this, but in the fifties, they would shine a hot light on the mice's nose, on the mouse's nose while they were eating something that they really liked. And they would time to see how long it took them to turn away from the hot light to get rid of the pain.

Well, so what he did is he did electro acupuncture on one of the mice. And approximately four times longer to turn the head of the mouse. So, you know, probably a four times reduction in pain. Okay, that's cool. But what he did next was absolutely brilliant.

Nerves, Points, and the Soup Response

He took cerebrospinal fluid out of the first mouse and he injected it into the spinal fluid of the second mouse. And the second mouse then had the same resistance. to pain and discomfort. This is stunning, right?

That proved that the reduction in pain is because of changes in neurotransmitters in the cerebrospinal fluid and in the brain. It was brilliant. He went on to actually show the specific frequencies, electroacupuncture, that affected different parts of the brain.

Now, I studied with Zhao Xunfa, who did scalp acupuncture, and there's some very good movies out there of him treating some famous people. I studied with a fellow named Shi Zhui Min.

This is, I had to hear this number half a dozen times before it finally sunk in. So in China, the way they set up their hospitals, it's like they'll have one hospital per region that treats stroke and neurological conditions. And they'll have one hospital that basically treats liver disease, et cetera. So the numbers of patients they can see is staggering. So Shizuoi means clinic, not he personally, but his clinic treated 10,000 patients a day. Now, when you treat that many patients, you really can learn a lot. And I was very fortunate to study with Dr.

Shiro and he had just a brilliant, brilliant technology that he created. You see Irvine's doing a lot of research. Michael Corradino and NeuroPuncture has really taken Dr. Han's and taken to a much deeper level. And then Pony Chang, who does a lot of dissection. And Pony is the one who determined that 323 of the 324 points that they looked at under dissection were over major nerve bifurcation. So where the nerve split off. And so if you go down one nerve trunk, say in the outer part of the leg, which we call the gallbladder channel, every one of the points is at a location where a smaller nerve branches off of that. Again, how they discovered this 2000 years ago, I don't know, but it's fascinating. Now there are lots of different types of nerves or neurons. We're going to focus on two, basically. We're going to look at motor neurons and those fire a muscle when you want to move. that's what's being activated to the motor neurons. Sensory neurons that send a message back to the spinal column and up to the brain to tell your brain what's happening out here. Oh, it's hot, it's cold, it's sharp, et cetera. Now often these are in what are called neurovascular bundles. Vascular means blood vessel. And so you'll find blood vessels, motor neurons, and sensory neurons all bundled together. That way you can have fewer holes going through the muscles and other, and the fascia of the body. And so you, they bundle in these neurovascular bundles. We can, and we do

stimulate motor neurons for orthopedic and sports medicine applications. My wife is acupuncturist for the San Francisco 49ers football team, St. Mary's rugby team and sports athletes all over the world. And so this is primarily what she's doing. She's stimulating motor neurons to release muscles, to rebalance the system. And also she does it for improvement, sports improvement. now we stimulate local points. So that's, you have a point, you have them all over your body. And if you're stimulating a point with one or more needles, you get a release of what's called the soup. And these, this speeds healing very, very, very dramatically.

Beats it up at a tremendous level. Now we use sensory neurons to feed back to the spine and the brain, and that's most of our topic today. And that causes the release of a variety of neurotransmitters and other chemicals to change how the perception of pain and other issues changes in the brain. So the soup, just to tell you what that is, it's about 15 known chemicals and who knows how many unknown chemicals. that get released locally that enhance healing.

Plexuses and Pain Modulation

So you got prostaglandins, uh critical for healing, serotonin, adenosine, red cells, white cells, substance P, all of these things get released locally and that helps localized healing. So someone has a surgery and they have a scar and the scar's not healing properly, we would do this. Or if they have a contusion or a bruise, et cetera. Now all acupuncture points release this at the soup at various level, but electroacupuncture will have the strongest effect. In the old days, they would have an apprentice pump the needles up and down about 100 to 200 times a minute, but we really aren't situated to do that. So we use electroacupuncture. So here's the upper body and here are the dermatomes affected by the different nerves coming out of the spine.

in the spinal column, and then the motor nerves, which would be affected here, are bundled with the sensory nerves. So if you know where the motor nerve is activated, you know where the sensory nerve going back to the brain is activated. And these are some other neurotomes.

Now, the interesting thing here is you can barely see along the spine. You see T2, T3, T4, et cetera. Well, the Chinese mapped those points out again over 2000 years ago and knew precisely which organs those different nerves affected. And we use this a lot with internal medicine and gynecology. Brachial plexus. And so a plexus is where things join together. And if we need a point called large intestine four, which is one of the first points that we learn in the first year of acupuncture school. It stimulates the radial nerve. And if you, if you needle it deeply, it'll also activate the median nerve. This was my teacher's favorite point. He used it on almost everybody. And then that signal will travel up the nerves, the radial and median nerves, uh, to the brachial plexus. And that will cause the release of serotonin and kephalins, noradrenaline, et cetera. And so the brachial plexus is in the neck. And I will show you in a minute where that is. Then it goes to the central nervous system at the hypothalamus where you get a huge release of beta endorphins. You know, we know a lot about endorphins and opioids as feel good chemicals. Man, when patients get this treatment done, they're just zoned out. The beta endorphins activate something called the PAG, aqueductal gray area, and it's the pain center. And when you stimulate that, You can down regulate pain. It's always hard to remember that pain happens in the brain. When you hit your finger with a hammer, it sure as heck feels like it's in your finger. But actually that pain signal is coming from your brain down the spinal cord and then out to your extremities. The nerve roots of the brachial plexus are C5 to T1. So those are the nerves of the lower part of the neck and the beginning. of the thoracic nerves in your upper back. And there are three different combinations of power that come together in that area. So this is a really important area to treat the brain. It's also master region for the face and neck. And so we do important points and combinations and we can use one needle to stimulate all three bundles. We can L-I-4, that's large intestine four. Insert it all the way to the median nerve, or we can do a couple of other points called Lingu and Dabi, which I'm not going to go into here.

Key Points, Frequencies, and Neurotransmitters

Or we can stimulate large intestine 11, which is along the crease at the outside of your elbow, which stimulates the lateral antebrachial nerve, which eventually goes up to the brain. So the nerve, by needling points that activate the nerve plexus, you get more bang for your buck. You can stop pain at the plexus. You can cross over easily. And I love to do this trick with doctors where I will needle the opposite side to where they have the pain and the pain goes away on the other side. And they go, well, that's not even possible. So doc, have you forgotten your

anatomy?

You know, everything crosses over at the spine and it'll go down to the other side. So you can affect the contralateral side. So pick a plexus, have fun. Again, I mentioned 233 out of 234 acupuncture points were over nerves and bifurcations. And the most powerful nerves that are used will connect to one of the four major plexus, the cervical in the neck, the brachial in the lower part of the neck, the lumbar in the low back or the sacral, which is down in the sacral area, obviously below the lumbar region. So we used, we'll treat those. And these are just some points for the cervical. You've got C1 through four, brachial C5 to T1, lumbar LI1 to LI4, sacral L4 to S4. So L is lumbar. So the low back, S is sacral. Those are actually over the sacrum itself. And so these are very, very powerful things to treat. So other. Really important points and point combinations. So you see the GB34, the peroneal nerve, that's on the outside of the leg, goes up to the sacral plexus. The tibial nerve at spleen six, that is one that we use a lot these days. There were a couple of really powerful studies that came out fairly recently showing the power of doing electro acupuncture on the tibial nerve to correct overactive bladder. and to stop urination when you didn't want it, basically when you sneezed or coughed. And so these are all stimulating very, very important points. Microcurrent versus millicurrent. So when you're using electroacupuncture, use microcurrent. That's very, very, very, very low current for the generalized tissue healing.

Use millicurrent for motor point treatments. and usually millicurrent for central nervous system and plexus involvement. And again, these are all charted out. As you can see here, this has changed my life, all right? And so by stimulating at different frequencies, so the electroacupuncture machine, you can uh change the intensity and you can change the frequency. So here, beta endorphins, if you want to really stimulate those, It's a very slow stimulation, two to four hertz. Now, if someone is doing some kind of treatment that blocks their endorphins, say they're on something to get them off of opioid habituation, then the endorphins may not work. So then we come down to number four, which are dynorphins, which are not affected by those anti-opioid treatments. And we do 100 hertz, a very, very fast frequency. The one on here that has made the biggest difference for me is oxytocin. So I have done a tremendous amount of fertility in my career, treating men and women. But often with our pregnant patients, it'll come down to almost time for delivery and their doctor wants to induce. And they'll come in begging for us to do the induction, which is much, much less painful and difficult.

And so once they publish this frequency oh of 2 Hertz, it's called a mixed frequency. So the machine goes back and forth from 2 Hertz to 15 to 30 Hertz. Now we got good results at stimulating labor induction over the years. But now that we know this points, we use the same points, I'm sorry. But now that we know these frequencies, it's almost always a done deal. So it's awesome. little dopamine there to help people be happy. We love that. So anyway, this is just a diagram, not to be taken too seriously, but you see that purplish area in the center there, that's called the para-aqueductal gray area. And that, if you stimulate that properly and the hypothalamus, then it'll block pain.

Scalp Acupuncture and Brain Treatment

And of course, there are ways that we can stimulate dopamine pathways to make people happy. The reward pathways can stimulate serotonin pathways to help with sleep and cognition, et cetera. And this is just a map of some important points on the head. Now, Zhao Xunfa, one of my teachers, created or actually discovered the scalp acupuncture system. Now, he realized that the points used to treat the brain lie directly over the corresponding areas of the brain. He was one of my teachers and I watched him get phenomenal results. We use this a lot with our stroke patients. We get phenomenal results, particularly for things like aphasia where the, had one fella, I almost cried the other day when he first came in. I could not understand a word that he said. I now understand 95 % plus of what he says. It's so wonderful. And this is a mapping, not a very good picture.

of Zhao Xunfa's point locations. At the very back, there's a point for aphasia. This line, the heavier line coming down in front of the ear at a diagonal, those are really to treat the motor points and the sensory points. And again, just a map of the brain. So treating neurological injury. We want to release appropriate neurotransmitters for signaling and healing.

And so some of the most powerful points are actually in the fingertips. They really have a huge effect on the autonomic nervous system. So, so Einstein, one of my favorite quotes of his, when there was a special a few years

ago, and they said, Dr. Einstein, how does it feel to be the most brilliant man on the planet? And he said, I don't know, you should ask Tesla. And so Tesla, who Einstein says was the most brilliant man on the planet, says, if you want to find the secrets of the universe, Think in terms of energy, frequency, and vibration.

And that is exactly what acupuncture does. There's another fellow, Jerry Tennant, published a book called Healing is Voltage. And he's actually examined the exact voltage that each of the organs, your liver, your heart, et cetera, should operate at and how to most effectively get them back in balance. Okay. We treat almost everything, but we're going to do the brain today. Parkinson's, you get Lewy bodies in the substantia nigra. You stop producing enough dopamine. There are drugs like Carbidopa and Levodopa, which increase dopamine levels, but they eventually burn out the receptors and they stop working.

Neurological Conditions and Stroke Recovery

Someone that I'm close to that has severely advanced Parkinson's, and you can clearly see that their dopamine levels are burned out. Parkinson's, the first symptoms. If you're concerned about it, if there's Parkinson's in your family, go online and there's some new Parkinson's studies. you know, I put here resting tremor often starts with a twitch, festinating gait, that's where the feet don't quite work.

Turns out there are earlier things. So one of those is if people start their handwriting changes, and they start writing smaller letters. This will happen over time. But we have all of these issues that we see in Chinese medicine. It's called wilting leg chi, and there's often an injury at a point on the foot. So we use scalp acupuncture on the motor line to control the tremors, and I've done that very effectively. But we use acupressure or electroacupuncture on the spleen and stomach to bring the chi down into the leg so it's not trapped in the brain.

Multiple sclerosis, I treat a lot of MS. It's uh a demyelinating disease. That means the nerves in the brain that should have a coating on them so that they don't short circuit with each other, they get demyelinated. And so because of that, you get patches of white matter in the brain or spinal column. where tissues have died. Developed by Jean-Marie Charcot, which is fascinating, when you look at so many of these neurological conditions, they're actually named after French doctors who were all studying together in France at the Pasteur Institute.

It's a fascinating story. And there are very uh different types of MS, but they're all immune-mediated. A lot of times the first system is visual, like a double vision, but it can have almost any neurological sign. Eventually it's going to affect strength and muscle spasms. Now here's one, concussion. Grossly underdiagnosed, particularly in children. It can linger for a very long time. I'm treating several patients who have been diagnosed with dementia, but I believe we can trace the dementia to their insidious number. of concussions. One patient that was in the other day played field hockey, was very active, has more concussions than she can count.

CTE, traumatic encephalopathy, infects the majority of professional football players. There was one study where I think a hundred football players donated their brains after they died, and they found that 99 of them had encephalopathy. There was damage visible damage in the brain. And so you see a lot of depression, anger, dementia, suicide in those cases. Now, XNKQ is the form of treatment that Dr. Shijue Min created at his stroke hospital in China. And he had a massively effective treatment percentage. So, The total effective rates of curative effect for all of these conditions was over 98%. Over 98 % curative in his hospital at the time this study was published and when I studied with him. That's astonishing, absolutely astonishing.

And that's why I'm doing this talk today. 9,000 needles. There was a movie put out about stroke, and Dr. Shoo's Stroke Hospital had the highest rate of post-stroke recovery in the world.

And this is using a scale called the Edinburgh Scandinavian Scale, which is not Chinese.

Dementia, Brain Ischemia, and Closing Remarks

It's for the entire world. This is how the World Health Organization set the diagnostic criteria, 98%. And obviously, those are needles. Dementia. And it's the most feared of all conditions by my patients. Everybody's afraid of dementia. You got three major types, Alzheimer's, Lewy body, and brain ischemia, which is a lack of blood flow.

And when you get an MRI CAT scan, if there is brain ischemia, usually the doctor doesn't even tell you because they don't have a good treatment for it. We have multiple good treatments for it from red light therapies, powerful, powerful red light therapies. to electroacupuncture, to herbal treatments to treat brain ischemia.

The End of Alzheimer's, this is a book by Bredesen about studies and treatments at the Buck Institute. Now they postulated six different types of dementia and the six types are completely consistent with traditional Chinese medicine. And in fact, in one of his later books, he acknowledged that a lot of his ideas came from traditional Chinese medicine. So, thank you. I want you to be happy. I want you to find the best form of healing practice that you can find, whether that's Western medicine or acupuncture, chiropractic, et cetera. And always remember, being happy takes practice. Thank you. Bye bye. Thank you for joining me on The Balancing Point. If you enjoyed today's episode, please follow the show, share it with a friend, and leave a review. Feeling out of balance? Most approaches just manage symptoms. Here we get to the root. So real healing, real clarity and balance can begin. Visit alamedaacupuncture.com.

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