

Sensory Tricks

Edgar Romero, DC, DACNB

Just got back from the Suprasegmental Symposium at Life Chiropractic College; it was quite special. Organized and encouraged by students at the school, the symposium drew together some of the best minds in chiropractic neurology, some from as far away as Australia, to share our experiences and knowledge with a roomful of students and other excited doctors.

Many parts of the weekend were special, but a portion of the lectures focused on dystonia, with which Dr. Carrick has world-renown expertise, and an exciting explanation of some "tricks" were explained by a wonderful instructor for the Carrick Institute, Adam Klotzek. Adam showed a video (I love seeing actual videos of patients; all of us can profess to our success and ability, but when you see it happening live on video it adds a reality to the clinical book knowledge that, at least for me, allows us understand it in a way that diagrams never could) of a patient with Parkinsonian symptoms, such that the patient presented with bilateral tremors. Adam had the patient not take his medication for two days before the evaluation so that he could evaluate the true nature and function of the neuraxis.

It is difficult for some in our profession to swallow, I know, but there are times that medication, at least from a quality-of-life standpoint, is necessary for patients to function in today's world. The problem with medication is, of course, the harsh reality that there is no medication that will *only* go to the area of the patient's lesion. Medication effects will always be global, and thus, though perhaps alleviating some symptoms, they will always have secondary effects when "normal" areas of the nervous system and body are also inevitably affected. This process of evaluating the true level of neurological function is the approach I also utilize in practice when applicable and possible.

This patient, suffering from a constant resting tremor, was told by Adam to flex his left wrist. Immediately, almost magically, his left hand tremor disappeared. He was next told to flex his right pectoralis muscle at the same time, and his right tremor magically disappeared. With both of these neurological inputs firing, Adam then proceeded to give the patient some beautiful, coupled neurological adjustments,¹ further stimulating the neuraxis centrally, such that when the patient got up from the table, he was completely tremor free! How many of us can say we have those type of results on a daily basis?

As a chiropractic neurologist myself, I actually do have these results often (but not always; individuality means some things just do not work for everyone), but only because I understand the neurology as well. It is always refreshing to watch a master at work, and I was greatly impressed with the immediate response we saw in Adam's patient.

Let's go over what is actually happening with these "sensory tricks", and how some of you can start exploring these tricks for your own patients. There are important connections between components of the basal ganglia, damage of which can lead to these finding of dystonia. On the largest scale, the basal ganglia form a loop that begins and ends in the cortex. Anatomists have distinguished two main circuits, known as the "direct" and "indirect" pathways. The direct pathway runs cortex → striatum → GPi → thalamus → cortex. Two of these links are excitatory and two are inhibitory, so the net effect of the whole sequence is excitatory: The cortex excites itself via the direct pathway.

The indirect pathway runs cortex > striatum > GPe > STN > GPi > thalamus > cortex. Three of these links are inhibitory and two are excitatory, so the net effect of the sequence is inhibitory: The cortex inhibits itself via the indirect pathway. The total effect of basal ganglia upon the cortex is believed to result from a complex interplay between these two pathways.²

One area that interconnects both pathways is the thalamus, which integrates into the cortex which will itself fire back down into the basal ganglia to maintain a level of tonic inhibition when the basal ganglionic centers are firing properly. This tonic inhibition will decrease tremors, and symptoms will miraculously disappear. The trick (pun intended) in finding your thalamic "sensory trick" that will increase the central integrative state of the basal ganglia and ameliorate the patient's symptoms is different for everyone.

Life experiences are different, toxic exposures are different, foods eaten are different, and, last but not least, genetic expression is different. The beauty of the human experience is that we all have our own take on the same event; this guarantees our own individuality, but also guarantees we need to be clinically aware and expert when approaching each and every case before us. I have used sound, light, eye exercises, motor activity (as Adam did) and even different tastes when experimenting with what "trick" will do the trick in individual patients needing a higher basal ganglionic firing rate.

Sometimes you seem the genius with unfettered praise for all (like Adam's case), and sometimes the changes are painfully slow, if at all (at least in my experience). The truth of the matter, regardless, is that we better have a handle on the neurology if we wish to honestly and safely promote changes in a patient's neuraxis. This means getting yourselves to some neurology courses and learning this stuff properly, and learning it cold.

For now, try most of your sensory tricks on the opposite side of the body to the primary side of symptoms, and if the symptoms are bilateral, start with the cortex opposite to the worst side. I know this is woefully inadequate for most of you who truly want to help your patients, but just the awareness that such changes are possible - naturally, neurologically and chiropractically - should be enough, I hope this gets you excited to get in your office for that next case, and the next one.

Notes

1. I have gotten so many e-mails regarding what the heck I mean when I say "coupled adjusting" that I will, I promise, get an article together about what we are doing. Suffice it to say it is biomechanically correct adjusting, and if we had to describe it a certain way, then Gonstead technique would most closely approximate it. The challenge with writing about this, of course, is that it is very difficult to describe a technique in words; as with Adam's video, a picture is truly worth a thousand words, and there is just no substitute for seeing it directly. The Carrick Institute has some great videos describing the approach, and there are seminars (with Adam teaching some, if I remember correctly) that will explain all. I will write something down eventually, though, but I fear I will not be up to the task.
2. Wikipedia has a nice image and explanation of this (I thought it was actually pretty darn good). Dr. Carrick also presented a slide from Wikipedia, joking with us that if a 5th grader can read this information and make sense of it, it would behoove those of us who profess knowledge of these conditions to understand the pathways better than they would. It made us all laugh, but really made an important as well: How can we possibly, in good conscience, treat something we truly do not understand? A proper chiropractic adjustment is just too powerful to be used flippantly, although I myself will often forget that fact.

