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MacMhaoirn, Alasdair

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# *An FSN Treatment of Parkinson's Disease*

## *A Case Study*

*by Alexander. B. Mearns, Lic.Ac. B. Sc. (Hons), Dr. Sc.*

*Private Clinic, Tain, Ross-Shire, Scotland*

### **Abstract:**

This paper describes the application of FSN acupuncture treatment on a 57-year-old woman who had a diagnosis of Parkinson's Disease. The treatment was weekly, and resulted in a significant reduction in the patient's tremor from the outset and which continued to improve in subsequent treatments. After four weeks the tremor was negligible, and this progress has been maintained since.

**Keywords:** FSN, Acupuncture, Parkinson's

### **Introduction:**

Parkinson's Disease is a progressive degenerative disorder of the nervous system which affects the motor system. Advanced stages can be associated with dementia. The causes of Parkinson's are not clear but appear to involve both genetic and environmental factors, with a pathology of cell death in the brain's basal ganglia.

FSN (Fu's Subcutaneous Needling) acupuncture, also known as Floating Needle acupuncture is an innovation in treatment which does not follow TCM theory (Xiao et al., 2013), and therefore TCM pattern diagnosis is unnecessary, although FSN does not preclude adding TCM treatment as well. The range of use of the technique has expanded (Zhong and Zhang, 2015), as well as research into possible mechanisms of operation.(Fu et al., 2007).

Acupuncture has been applied extensively in Parkinson's treatments (Zeng et al., 2013), however a review of English language literature did not produce any studies of the application of FSN acupuncture on Parkinson's. This paper is being put forward in the hope of partly filling this gap.

### **History of Illness and Symptoms:**

*Patient:* The patient was a 57-year-old woman, who described herself as being in good health. Her history included hysterectomy 9 years previously, and for the last 5 years she has had a problem with bladder urgency. Since her tremor involved her left arm it may be significant that her left elbow was dislocated when she was 10 years-old. Also, her bladder problem significantly worsened, and her tremor began after a very stressful time within her family a few years before.

*Symptoms:* She had a tremor in her left hand and forearm, which had gradually worsened over the last two to three years. She was diagnosed with Parkinson's in the summer of 2017. She said the tremor became worse with stress and also if she were cold. She was not aware of the tremor when sleeping, but it was very active upon waking. To an extent at least she said that she could control the tremor with concentration, however if she was involved in other tasks, for example at her work, the tremor occurred. At times she would have to sit on her hand to restrict the tremor so she could

manage her work. At the time of the initial diagnosis her tremor occurred at 3 to four movements per second.

*Medical Treatment:* She was on pramipexole, slow release at 0.52 mg daily for the duration of this study. She was on no other medication.

### **TCM Signs:**

Pulses: all deep, Lung/Large Intestine very weak (Qi deficiency)

Tongue: red, teeth marked, a deviation toward the left (heat, damp and wind)

### **A Brief Introduction to FSN**

FSN is new development in Chinese Medicine. FSN is similar, for instance to Five Element Acupuncture, in that FSN Acupuncture does not require a TCM pattern diagnosis. It was invented by Dr Zhong-hua Fu in 1996 in Nanjing. FSN involves a modified acupuncture needle which is manipulated to stimulate areas near trigger points or near tightened muscles and has been effective in treating musculoskeletal conditions and other conditions. The FSN needle only inserts into the subcutaneous layers this technique is almost pain free, and very safe. It has been found that it can produce incredible pain relieving effects. For some acute pain conditions, such as muscular and ligaments strains, tennis elbow, or acute back pain the pain relief can be almost instantaneous. (“Subcutaneous Needling,” n.d.)

To begin an FSN treatment the practitioner palpitates for tightened muscles related to the particular problem. An insertion point is selected outside of the tightened area and after insertion of the needle into the subcutaneous layer the needle is then manipulated with a sweeping technique referred to as a swaying movement. It has been found that the technique works best when the tight muscle is moved during the swaying movement and this is referred to as reperfusion, and especially if some resistance to the movement is provided by the practitioner. Reperfusion is complete when the targeted muscle is relaxed.

The specialised FSN needle is made up of a metal section contained within a separate plastic casing, the cannula. At the end of a session, the metal part of the FSN needle is removed, but the plastic cannula can be retained to continue stimulating the affected area. The cannula is usually retained for 2-24 hours and is safely secured in position by a suitable plaster. The cannula should not be uncomfortable, and the patient should carry out normal day to day tasks. The mechanism of operation of FSN is being researched. At present there is some evidence that the mechanism involves the fascia layers (Fu et al., 2007), and the recent discover of the interstitium is now coming under consideration (Benias et al., 2018).

### **Treatment and Outcomes:**

#### *First Treatment:*

Upon examination, tightness in the patient’s left trapezius and left supraspinatus muscles were evident and also in the extensors of her left forearm. Three insertions were performed, each with reperfusion with resistance to movement of the tight muscles. When the muscle felt relaxed,

treatment moved on to subsequent insertions. The casing was retained in the second and third insertions, to be removed by the patient the next day.

Insertion 1: On the distal end of the trapezius, level with Bladder 16. The needle was pointed upward toward the supraspinatus muscle.

Insertion 2: On the medial end of the supraspinatus muscle with the needle pointed laterally. The casing was retained.

Insertion 3: On the extensors of the left forearm, proximal to Large Intestine 8. The casing was retained.

Additional Needling: To relax the patient the Four Gates and Yintang were needled with even technique, and to tonify her Qi Kidney 3 and Lung 9 were tonified.

#### *Second Treatment:*

The patient's condition had improved. She said that her arm moved more naturally when walking, and for the first time she had no tremor when she awoke. This lasted for 2 -3 days and then the tremor returned. She also reported that her bladder urgency had improved.

#### Insertion Selections:

Two insertions were performed as in treatment 1, on the trapezius and on the supraspinatus muscles. The extensors were not needled because they did not feel tight. The casing was retained on the supraspinatus.

An additional insertion was performed on her lower left abdomen to investigate any effect on her bladder urgency. The casing was retained.

The Four Gates and Yintang were also needled evenly, and Kidney 3 was tonified.

#### *Third Treatment:*

The patient did not have a good week. Her tremor had become worse and her bladder, although improved initially, got worse again.

Since the extensors were not needled in the previous session, they were needled to see if needling would have an effect.

Insertion 1: As before, on the supraspinatus. The casing was retained.

Insertion 2: On the extensors on the left forearm. The casing was retained.

Insertion 3: On her left abdomen as before. The casing was retained.

Additional Needling: As previously: Four Gates, Yintang, even; tonify Kidney 3.

At the end of the session additional reperfusion was performed on the supraspinatus.

#### *Fourth Treatment:*

The patient reported that her tremor was very much improved, even given a week of stressful situations at her work. Her bladder was initially poor, but improved.

This treatment was a repeat of her previous, her third treatment, including additional reperfusion at the end of the session. Her abdomen, however, was not needed.

#### *Fifth Treatment:*

The patient reported that her tremor was infrequent and slight, and did not worsen even when stressed or tired. Her bladder function had also improved. She had no obvious tremor when she arrived for treatment. It was notable that when a knot on her left supraspinatus was pressed, the tremor was activated. It stopped when there was no pressure applied to the knot. I also noted that there was no deviation of her tongue, as was observed when she first came for treatment.

Her previous treatment was repeated.

#### Sixth Treatment:

As per the previous treatment. Her progress was maintained over a three-week interval between the fifth and sixth treatment.

### **Discussion:**

FSN or Floating Needle acupuncture has been practiced in China for over 20 years although in the UK it is new and practised little outside of the Mandarin speaking community. I received my initial training in this new technique through two CPD events, in 2016 and in 2017, organised by the Association of Traditional Chinese Medicine and Acupuncture, UK., and also through clinical experience one on one with Dr, Jidong Wu, from Cambridge Chinese Medicine, who was also the trainer for the CPD events. The application of FSN has been evolving and the range of conditions successfully treated is expanding dynamically. As well, a lot of research has been undertaken to understand better its mechanism of operation.

When the patient initially came for treatment, I was very uncertain that she could be helped. We discussed my concerns, and we proceeded on the understanding that the best we could do was to apply the treatment and evaluate the outcomes. I also contacted Dr Jidong Wu, who advised that a lot of reperfusion was important for success.

The supraspinatus muscle was a major focus throughout the treatments, and was indicated by recurring tightness found there. The extensors are a puzzle because after the first treatment there were no indications for an insertion, namely tight muscles or trigger points. When the extensors were not needled however, the patient did not have a satisfactory result, so needling in this area was continued in subsequent sessions.

Although there didn't appear to be any tightness in the extensors, I included an insertion in the treatments owing to both patient perception that they were necessary, and also that their omission during one session led to an unsatisfactory outcome. More experience is necessary to investigate the role of the extensors under similar circumstances.

Based upon Dr Wu's advice concerning the importance of reperfusion, I performed reperfusion at the beginning, as usual, and also at the end of the session just before the metal section of the needle

was removed from the casing. This may have been important for the treatment's success. At the end of each session the supraspinatus did not feel tight. Empirically at least, the relaxation of the supraspinatus and the extensors coincided with a noticeable reduction in the patient's tremor. After the third session this progress was maintained.

The success of the treatment will be assessed over time, but for now the patient has experienced much relief and is feeling very positive about the future. She is still on her medication, but at least she is able to live without an intrusive tremor.

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