



Management of Post Stroke Pain or Neurogenic Claudication –Acupuncture – A Panacea for Both

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ABSTRACT

Chronic post stroke pain and neurogenic claudication are two different types of chronic pain. The pathophysiological bases of pain in these disease states are still not clear. We present one case in each type here. The first case was a case of young stroke patient who developed post stroke pain persisting for a few months. The acupuncture points, Du20, Li4, Sp 6, st36, st44, GB40, Liv 3 and a few Ah shi points were manually stimulated to relieve pain and the visual analogue scores(VAS) came down from 9/10 to 2/10. The second case was a forty-five-year-old female who was diagnosed as neurogenic claudication of the left upper limb after a thorough neuro cardiac evaluation. As pharmacotherapy failed to control pain (VAS-9/10), acupuncture was initiated in Du20, Li11, Li9, Li5, Li4 and Ex 9. The VAS score came down to 1/10. The analgesia persisted for a few months even after a two-week treatment. There were no side effects in either case. Even though successful acupuncture use has been reported in post stroke pain, this is possibly the first case of neurogenic claudication of the upper limb successfully managed with acupuncture.

Keywords: pain, chronic, neurogenic, stroke, acupuncture

INTRODUCTION

A chronic pain syndrome is an abnormal painful condition in that, it is no longer a symptom of tissue injury, but pain and pain behaviours become the primary disease processes which make it distinctive from acute pain. As the pathophysiological basis of such pain is still inconclusive the treatment options are innumerable [1]. Central post-stroke pain (CPSP) is a central neuropathic pain syndrome characterized by pain and sensory abnormalities that manifest in the corresponding parts of the body which correspond to the area of the brain that has been injured by the cerebrovascular accident. The incidence of CPSP is found to be 8.4 %. The treatment options include drugs like amitriptyline, carbamazepine and electrical

stimulation of the brain. The success story of such management protocols is still not very satisfactory [2].

Neurogenic claudication results from compression of the spinal nerves in the lumbar (lower) spine. It is sometimes known as pseudo claudication. The symptom is very uncommon in upper limb. A lot of pharmacological treatment options have been tried for lower limbs which were also given in our patient.[3]. Acupuncture has been used with success in many pain conditions to establish analgesia[4.5,6].. Hence, we tried a course of acupuncture in both the cases with success and report this as a concept of

acupuncture as analgesic in different neurogenic conditions.

Case capsule:

Case 1:

A thirty-five-year-old female with hypertension for more than 5 years on irregular treatment developed weakness of right upper and lower limb for the past four months. The upper limb improved from motor weakness of 2/5 to 4/5 and the lower limb up to 3/5. There was a consistent severe pain of the right lower limb (Visual Analogue score – VAS -of 9/10) essentially neurogenic in character. The patient received antiepileptics, antidepressants for more than a month with negligible improvement. After proper counselling she was started on acupuncture in the following points

Du20, Li4, Sp 6, st36, st44, GB40, Liv 3 and a few Ah shi points. (figure1) The patient responded by decrease in pain even with two sittings and the VAS reached around 2/10 in seven sittings. After three more sittings, she was counselled to avoid analgesics. The patient was having no pain in another three months follow up.

Case 2:

A forty-five years old female after a thorough neuro cardiac evaluation was diagnosed as neurogenic claudication of the left upper limb. The basic symptomatology was severe neuropathic pain which was intermittent. She had no comorbid illness. The MRI scan showed mild cervical spinal stenosis. There were no other congenital anomalies of the bone or muscle to cause brachial plexopathy. She consumed all types analgesics and with severe pain of VAS10/10, she had depression and suicidal tendencies. She was counselled for acupuncture treatment was started on multiple sessions of twenty minutes each. Du20, Li11, Li9, Li5, Li4 and Ex 9 were the points used. (figure2) The patient had significant pain relief after seven sittings and she underwent another two sittings after which the course was completed. The VAS score decreased to 1/ 10 after the course of acupuncture which remained as such after a month of follow up.

Details of acupuncture:

The one *chun* (Chinese meter equivalent to the width of the patient thumb) silver needles were inserted

superficially and manipulated to enter the muscle belly with elicitation of the so called de chi. The sittings were daily for twenty-five to thirty minutes. The removal of needles was done only after resistance to removal has disappeared ⁷(Partha's technique). As the response was favourable, the electrical stimulation was not opted for.

Discussion:

Pain after stroke is not so uncommon but it is poorly understood by many medical practitioners. It can be easily overlooked because of its variable characteristics, multiple comorbid medical illnesses, or impaired communication. Pain itself is a disability, because it affects the quality of life, workforce of a person and difficulty in rehabilitation. As described for any chronic pain, the refractoriness in achieving analgesia is evident in CPSP also. Antiepileptic drugs, duloxetine, analgesics, deep brain stimulation have been described with variable success. Acupuncture and its electrical stimulation of points have been successfully used in many trials^{8,9}. In our case, we did not use electrical stimulation but we got enough analgesia in our case. Usually analgesia is achieved after many sittings but in our case, we could start getting results in three sittings.

Lumbar spinal stenosis is the commonest cause of neurogenic claudication which refers to an anatomic condition causing narrowing of the intraspinal canal and/or neural foramina. Spondylosis, or degenerative arthritis of the spine, is the most common cause of LSS, which typically affects geriatric population¹⁰. In our patient it was a relatively younger female. The significant difference between established cases is that ours was a claudication of the upper limb. Even this case, we had excellent results with initiation of acupuncture. We did not use electrical stimulation in our patient. The results were dramatic to achieve satisfactory analgesia in a few sittings. This patient had suicidal thoughts with pain and hence our results assume significance. The most important limitation is that it's a case report and not a clinical comparative trial.

Conclusion:

Short term use of acupuncture is effective in getting satisfactory analgesia in both post stroke pain and neurogenic claudication. The analgesia lasted for months even after completion of treatment. An initial

manual rather than electrical stimulation to achieve de-chi, is sufficient to get effective analgesia in such patients.

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Declaration:

The authors declare that there is no conflict of interest and the consent from patients have been obtained without showing the identity for publication in the journal

Figure 1 showing acupuncture needles in CPSP



Figure 2 showing acupuncture needles in neurogenic claudication

