

Triple Acupuncture Alleviates Low Back Pain

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Researchers find triple acupuncture combined with warm needle acupuncture safe and effective for the treatment of lower back pain. In a clinical investigation, Xianning Hospital researchers tested the efficacy of acupuncture for the treatment of dorsal ramus syndrome, which is characterized by lower back pain, spasms, and radiculopathy. The results of the investigation reveal that triple acupuncture combined with warm needle acupuncture has an 80% total effective rate for the alleviation of dorsal ramus syndrome. Another group

receiving standard acupuncture protocols without triple needling or warm needle stimulation achieved a 66.7% total effective rate.

After spinal nerves pass through the intervertebral foramina, they split into several branches: dorsal rami, ventral rami, meningeal branches, rami communicantes. A dorsal ramus is a branch of a spinal nerve that innervates muscles and skin of the dorsal aspect of the back. Lower back, gluteal, and hamstring pain that is relieved by blocking signal conduction along dorsal rami is attributable to dorsal ramus syndrome.

The researchers achieved significant clinical success (80%) by applying acupuncture needles to Huatuojiayi acupoints and GB30 (Huantiao, Jumping Circle). The Huatuojiayi acupoints were applied bilaterally at sites where patients experienced pain. Huantiao was needled on the affected side.

The researchers used sterile, single-use, filiform needles (0.35 × 50–75 mm). Following skin disinfection, Huatuojiayi acupoints were needled perpendicularly until patients experienced deqi sensations (e.g., soreness, electricity) and to a maximum depth of 1.5 inches. GB30 was needled (maximum depth 2–3 inches) to elicit a deqi response; specifically, an electrical sensation radiating towards the lower limbs.

Triple Acupuncture

Next, triple acupuncture was applied. To achieve this, an acupuncture needle was inserted 1 cun superior to GB30 and another was inserted 1 cun inferior to GB30. A maximum depth of 2–3 inches was applied with perpendicular insertion. The two additional points were manually stimulated to achieve a downward deqi sensation. This protocol is a standard triple acupuncture approach to GB30 that varies from another approach that was not implemented in this study. Another triple acupuncture approach is to needle GB30 to a shallower depth while the inferior and superior acupoints are needled deeply with strong manual elicitation of a deqi response. This alternate approach is used to avoid excessive stimulation of the sciatic nerve. Here, the researchers applied vigorous stimulation to all three acupoints and subsequently achieved excellent clinical results.

Moxa cigar cuttings (2 cm) were attached to the triple acupuncture points at the handle and were ignited. Total needle retention time was 30 minutes per acupuncture session. Acupuncture treatments were administered once per day for a total of 10 treatments, comprising one course of care. Three courses of care were administered with a three day break between courses for a grand total of 30 acupuncture treatments. The 80% total effective rate achieved by this protocol indicates that it is an effective approach to patient care.

A second arm of the study received a different acupuncture treatment protocol. Acupuncture needles were applied to the following points on the affected side:

- Shenshu BL23 (Kidney Shu)
- Dachangshu BL25 (Large Intestine Shu)
- Zhibian BL54 (Order's Limit)
- Huantiao GB30 (Jumping Circle)
- Chengfu BL36 (Hold and Support)
- Yinmen BL37 (Gate of Abundance)
- Weizhong BL40 (Middle of the Crook)
- Yanglingquan GB34 (Yang Mound Spring)

Following skin disinfection, filiform needles were applied (0.35 × 40–75 mm). GB30 was needled identically to the method used in the other arm of the study. The remaining acupoints were needled to a depth of 0.8–1.5 inches and were manually stimulated with mild reinforcing and attenuating techniques, until the patients experienced a deqi response. The same frequency of treatments and total number of acupuncture visits was applied as in the other arm of the study. The 66.7% total effective rate indicates that the warm needle triple acupuncture protocol achieves superior patient outcome rates when compared with this standard protocol.

Triple Needling Variation #2

The researchers comment that triple acupuncture increases clinical efficacy for the treatment of dorsal ramus syndrome. At the Healthcare Medicine Institute (HealthCMi), we host live webinars and provide online distance learning classes on the topic of lower back pain and more. In the acupuncture continuing education course entitled *Low Back Pain*, another and very similar style of triple acupuncture is presented. The continuing education online course notes that needles may be applied to BL53 (Baohuang), Yaoyan (MBW24), or GB30 for the treatment of back pain. However, instead of additional superior and inferior acupoints, additional acupoints are added 1 cun medially and laterally. Borrowing from the turtle style of surround needling, another approach is to apply all four additional acupoints (superior, inferior, medial, lateral). Visit HealthCMi to learn more about the acupuncture continuing education course:

The researchers comment that moxibustion improves clinical outcomes for patients with dorsal ramus syndrome. They note that Traditional Chinese Medicine (TCM) principles indicate that moxibustion helps to dredge and revitalize the acupuncture channels, relieve nerve root edema, invigorate qi and blood circulation, expel dampness and cold, stop pain, benefit the kidneys, and alleviate swelling. Citing Leeguó's work *Warm needling therapy for sciatica: a randomized controlled trial (Scientific Journal of Acupuncture and Tuina)*, they note that warm needle acupuncture is an effective modality for relieving pain. This accounts for the inclusion of moxibustion in the treatment protocol.

The researchers commented that the triple acupuncture treatment protocol improves localized blood

circulation, accelerates tissue metabolism, improves neurotrophs (nutrition and metabolism of tissues under the influence of nerves), relieves interstitial edema, eliminates inflammation, and stimulates the recovery of nerve fibers. They add that the treatment protocol facilitates the endogenous release of opioid peptides, which assist in the downregulation of excess sympathetic nerve activity. Treatment observations note that patients experienced significant relaxation of muscles and relief from spasms.

According to the data, acupuncture demonstrates the potential to obviate more aggressive, irreversible measures including spinal dorsal rami neurotomy (surgical nerve cutting to achieve sensory loss and relief of pain or to attenuate involuntary movement). This is often applied with radiofrequency ablation, surgical cutting tools for denervation, or a cryogenic lesion apparatus. An advantage to acupuncture is that it encourages healing of the nerve instead of destroying it. In addition, while neurotomy procedures may be immediately effective, “The duration of pain-relief after radiofrequency is from 6 months to 1 year (Zhou et al.)”

This presents long-term complications for post-operative, recurrent pain patients. Zhou et al. add that “a recent study has shown that neurotomy of lumbar medial branches can cause muscle atrophy.” In contrast, acupuncture may be applied repeatedly without injuring spinal nerves and without causing muscle atrophy. Based on the evidence, acupuncture is a reasonable treatment option, especially before considering elective spinal dorsal rami neurotomy. To learn more, consult with licensed acupuncturists in your area about treatment options.

References

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