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### Yamamoto New Scalp Acupuncture (YNSA) Acupoint Frequency In The Treatment Of Herniated Lumbar Disk, Lumbar Radiculopathy, And Mechanical Low Back Pain

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#### ABSTRACT

**Background** Yamamoto New Scalp Acupuncture (YNSA) is an acupuncture microsystem used for treating pain and dysfunction. To date, there has not been a large-scale study of the use, acupoint frequency, or location of YNSA in the treatment of various diagnoses of back pain.

**Objective** To determine the location frequency of YNSA Basic and Ypsilon points.

**Design, Setting, and Patients** A retrospective 2-year study of 115 successive patients seen at a private practice who received YNSA: 22 lumbar herniated nucleus propulsus (HNP) cases, 38 lumbar radiculopathy (LR) cases, and 55 somatic dysfunction/low back pain (LBP) cases.

**Intervention** All patients received osteopathic manipulative treatment (OMT) for identified somatic dysfunction and if pain persisted, YNSA was used.

**Main Outcome Measure** Location and frequency of YNSA acupoints to achieve pain relief.

**Results** A total of 115 patients with back pain had a mean average of 3.17 visits. Ypsilon points most commonly used were Yin of YIN, 86.4%, and the least common were Yang/YANG, 1.6%. The most common Basic points were YIN D1-6, 11.14%, and most common Ypsilon points were left Yin of YIN GB, 3.65%. This treatment approach resulted in mean visits per patient of HNP: 5.27, LR: 2.42, and LBP: 1.82.

**Conclusions** The use of YNSA and OMT for low back pain resulted in immediate pain relief with a minimum of needles. YNSA should be further studied for this application.

#### KEY WORDS

Acupuncture, Yamamoto, YNSA, Scalp, Low Back Pain, Lumbar Radiculopathy, Herniated Lumbar Disk, Ypsilon Points, Osteopathic Manipulation

#### INTRODUCTION

Yamamoto new scalp acupuncture (YNSA), used since 1973, is a complete acupuncture microsystem. YNSA is most frequently used for neuromusculoskeletal diseases, dysfunctions, and pain that may be either acute or chronic.<sup>1</sup> To date, there has not been a large-scale study of the use, acupoint frequency, or location of YNSA in the treatment of various diagnoses of back pain.

YNSA is composed of 2 categories: Basic points and Ypsilon points. The Basic points are scalp acupuncture points used to treat pain/dysfunction of anatomical body parts that are directly related to the disease/dysfunctional process. Basic points are associated with small elevations or firmness in the subcutaneous tissue of the scalp at prescribed locations. YNSA divides the scalp into YIN and YANG

wherein YIN is the anterior/frontal (Figure 1) and YANG is the posterior/dorsal part of the scalp (Figure 2). YIN is further divided into Yin of YIN and Yang of YIN. YANG is also further divided into Yin of YANG and Yang of YANG. YNSA acupuncture also uses Ypsilon points, which relate to the 12 acupuncture meridians (Figure 3). To identify which acupuncture point needs treatment, Yamamoto developed a palpatory neck diagnosis technique (Figure 4). YNSA neck diagnosis is a palpatory procedure to determine which Ypsilon quadrant needs to be treated (Yin of YIN, Yang of YIN, Yin of YANG, Yang of YANG) and which Ypsilon point needs treatment.

Ypsilon points represent all the acupuncture meridians except CV and GV. The 12 acupuncture meridians, LU, LI, KI, BL, HT, SI, LR, GB, PC, TB, SP, and ST, are identified by palpatory neck tenderness in specific areas (Figure 4). The YNSA neck diagnostic palpatory tenderness findings indicate which Ypsilon point to treat and which side of the scalp. The hardness or softness of the sternocleidomastoid muscle (SCM) is used to indicate in which Ypsilon quadrant (YIN or YANG) to place the needle in the respective Ypsilon point.<sup>1</sup>

### **METHODS**

I conducted a retrospective 2-year study relating to clinical findings of YNSA performed on patients in a private osteopathic manipulative medicine ambulatory practice. Data were gathered using the clinical documentation of each patient's medical record including history, demographics, physical signs, symptoms, imaging study results, diagnoses, and treatment. The selection of patients was determined by whether they received YNSA and if the treatment was for 3 types of back pain: magnetic resonance imaging (MRI)-documented symptomatic herniated lumbar disk/herniated nucleus propulsus (HNP), lumbar radiculopathy (LR), and mechanical low back pain/somatic dysfunction (LBP). All patients were adults who had areas of somatic dysfunction in the lumbar, sacrum, pelvis, and pain. Every case of HNP was documented by positive findings on MRI. All LR cases were documented by positive neurological signs of lumbar root nerve irritation, and some with negative MRI findings. Mechanical LBP was documented by positive signs of somatic dysfunction and pain, with negative MRI findings and radiculopathy.

**Figure 1.** YNSA basic points Yin

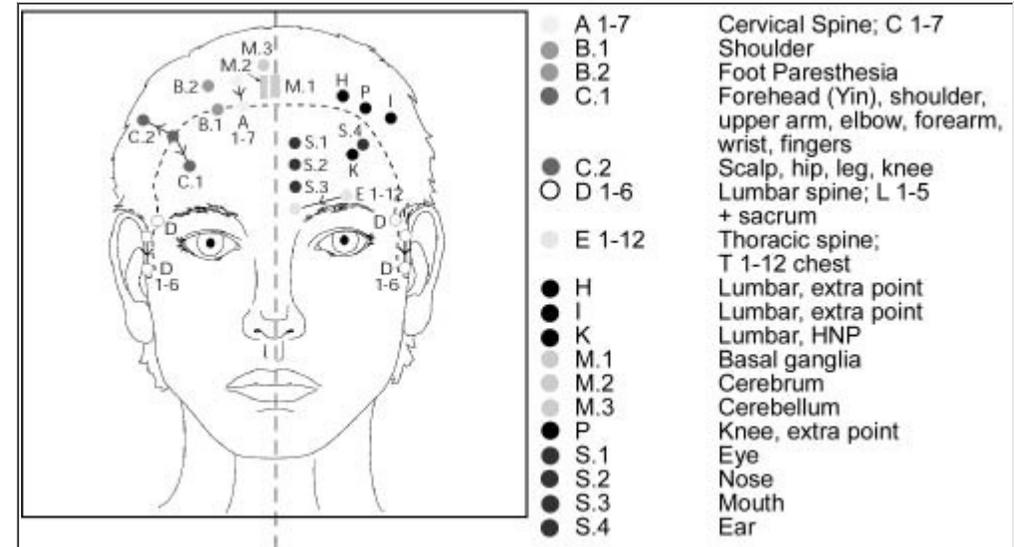


Figure 2. YNSA basic points Yang

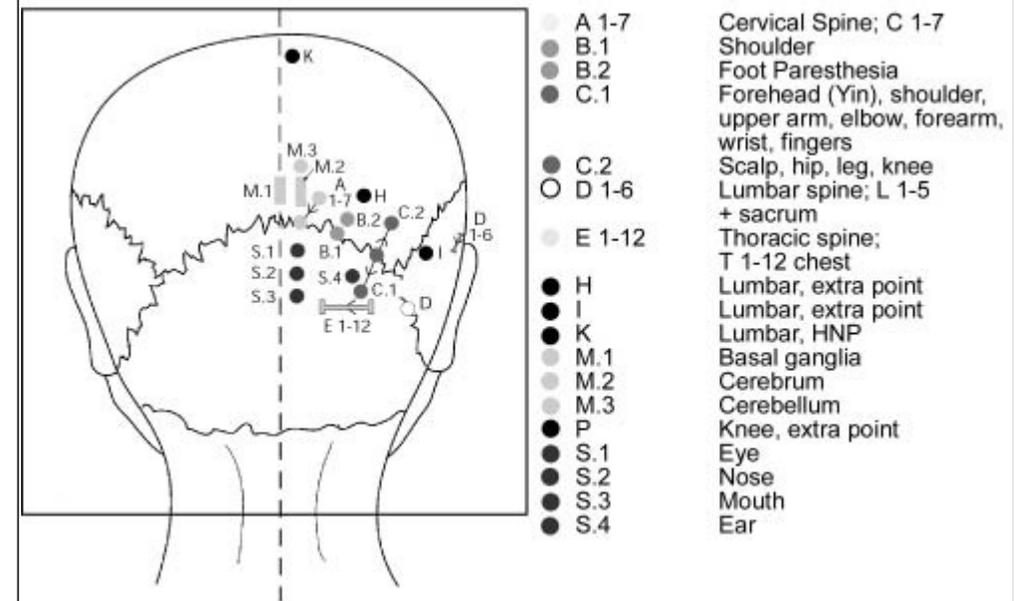


Figure 3. YNSA Ypsilon – Points (Yin or Yang, left or right)

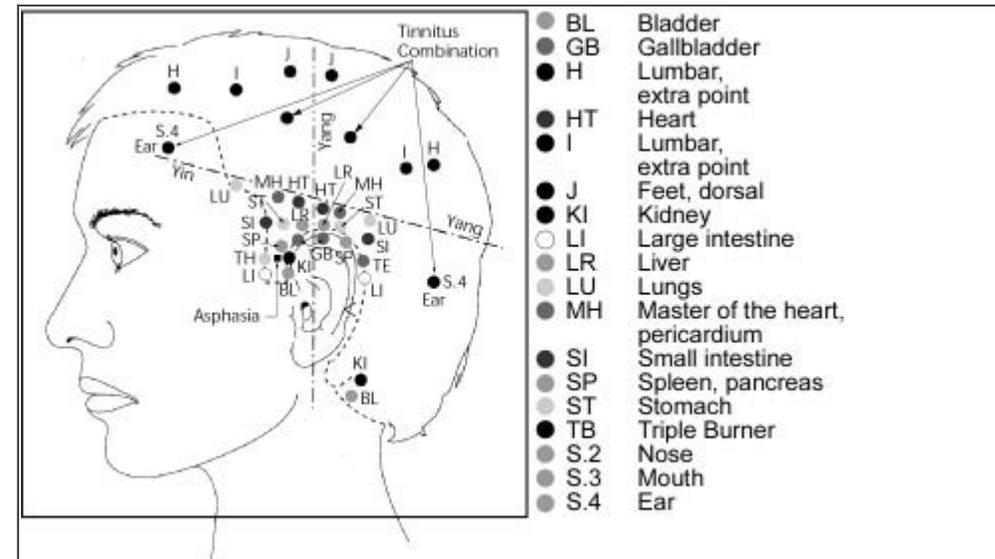
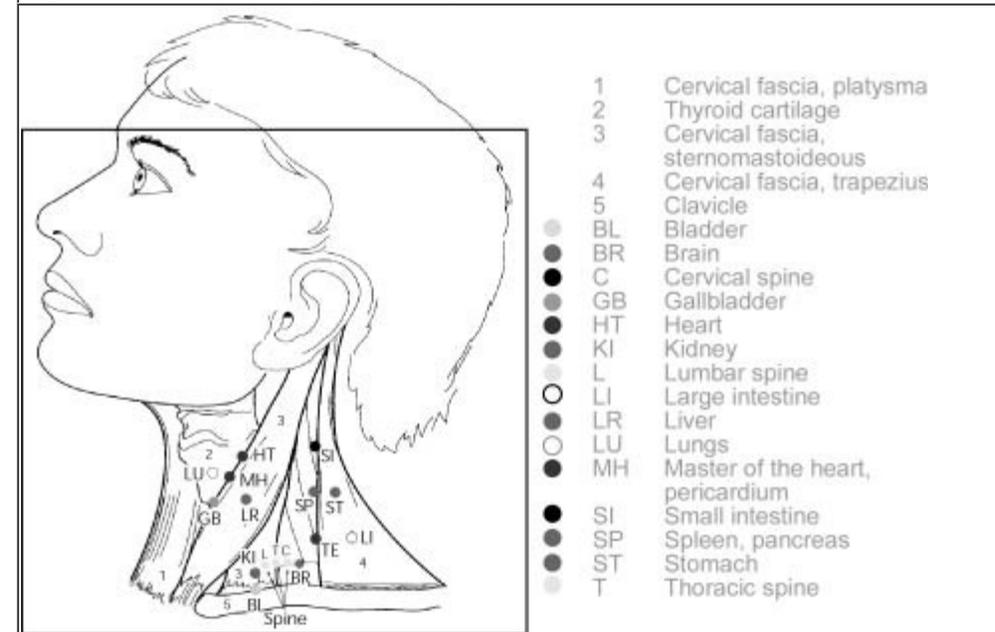


Figure 4. YNSA neck diagnostic test points



**Osteopathic Manipulation**

Osteopathic manipulation is a well-documented effective modality in the treatment of biomechanical LBP /somatic dysfunction.<sup>2</sup> Osteopathic manipulative manual techniques were used to identify areas of somatic dysfunction in the entire axial skeleton and the lower appendicular skeleton. A variety of manipulative

procedures, including high velocity/low amplitude, articulatory, muscle isometric "muscle energy," myofascial release, and cranial osteopathic manipulative procedures, were used with the end result of relieving mechanical restrictions/somatic dysfunction, improving range of motion, and decreasing pain, edema, and soft tissue texture changes.<sup>3</sup> The lumbar spine and its related structures were determined to be adequately treated biomechanically and by the patient's physiological response of that day. The patient was then queried about pain and tenderness that persisted with active as well as passive range-of-motion tests. Patients with persistent pain were then evaluated for the necessity of YNSA by palpatory findings of the He gu points and the neck diagnosis techniques. Most patients had a marked diminution of pain after osteopathic manipulation, but it was not complete. Thus, YNSA was indicated and after patient consent, YNSA was initiated.

#### Acupuncture Treatment: YNSA

YNSA was determined to be necessary by physical examination and history of the patient and palpatory tenderness associated with He gu point LI 4 of the left or the right hand. Tenderness of LI 4 is indicative of the sidedness, left or right, to initiate YNSA neck diagnosis technique.

The hardness or softness of the sternocleido mastoid muscle (SCM) indicates which quadrant should be piqued. The 4 quadrants are Yin of YIN, Yang of YIN, Yin of YANG, and Yang of YANG (Figure 3). A hard SCM indicates treatment is needed in Yin of YIN; a soft SCM indicates treatment is needed in Yang of YANG.

YNSA Basic points for the spine diagnosis techniques were used to determine the necessity of YNSA acupuncture; for example, D 1-6, which represents the lumbar spine, correlated directly to the YNSA neck diagnosis lumbar tender point. Other neck diagnosis tender points were used, both Basic and Ypsilon, in the appropriate quadrants as determined by the YNSA method. All YNSA neck diagnosis tender points were treated until there was no tenderness in the neck area after proper needle placement.

For acupuncture: a single needle was placed over the appropriate YNSA point in the appropriate quadrant by palpation for slight elevation of the subcutaneous tissue, and an acupuncture needle was placed in a tube with a vertical insertion, then needling was performed. After the needle was inserted, it was tonified with a clockwise motion less than 360°. As a routine, Basic YNSA neck tender points were treated first. The Ypsilon points followed based on positive YNSA neck diagnosis.<sup>1</sup>

After there was no neck tenderness, using the YNSA neck diagnosis method, the Hegu point was then tested for tenderness. If there was no tenderness, the acupuncture treatment ended. The

<b>Most Frequent Acupoints</b>	<b>HNP (n=22)</b>	<b>LR (n=38)</b>	<b>% LBP (n=55)</b>	<b>All Points Total Back Pain</b>
Left Yin of YIN D1-6	13.75	7.66	23.74	11.14
Right Yin of YIN D1-6	13.75	7.87	23.35	11.14
Right Yin of YIN A	4.64	5.32	5.06	4.09
Left Yin of YIN GB	3.78	2.34	9.73	3.65
Left Yin of YIN A	3.95	6.38	2.05	3.34
Left Yin of YIN BL	2.06	2.13	9.34	2.89
Left Yin of YIN KI	2.92	1.49	6.61	2.58

patient was then questioned whether he/she had significant pain relief.

Each patient was treated in my private osteopathic/medical acupuncture practice. Each patient signed a consent for treatment. During the course of treatment and research, each patient's identity was kept confidential.

For each treatment, demographic data of the patient were gathered along with information regarding other diagnoses at the time of treatment as well as other treatments given such as osteopathic manipulation, traditional Chinese acupuncture, Chinese herbs, injections, and/or medications. For each treatment, every YNSA point used was documented. Data were first separated by each specific diagnosis i.e., HNP, LR, and LBP. The data were then combined to provide a descriptive overview of the treatment of back pain.

## RESULTS

A total of 115 patients with back pain were treated. There were 51 men and 64 women, with a mean age of 47.5 years (range, 16-87 years). They were divided into 3 groups:

1. 22 HNP, 116 total points used; Left Yin/YIN D1-6 most common Basic point and Left Yin/YIN GB most common Ypsilon point (6 most common were D1-6, A, GB, M1, C2, KI)
2. 38 LR, 92 total points used; right Yin/YIN D1-6 most common Basic point and Right Yin/YIN GB most common Ypsilon point (6 most common were D1-6, A, M2, C1, M1, GB)
3. 55 LBP, 100 total points used; Left Yin/YIN D1-6 most common Basic point and Left Yin/YIN GB most common Ypsilon point (6 most common were D1-6, GB, BL, M2, KI, and PC).

The effectiveness of YNSA was evident in the immediate temporary relief of pain on nearly all visits (patients stated they had significant pain relief and a vast majority of cases had 100%.) The number of YNSA

Right Yin of YIN M2	2.58	3.4	1.68	2.52
Left Yin of YIN PC	2.58	1.91	6.23	2.52
Right Yin of YIN GB	2.06	2.55	6.23	2.52
Left Yin of YIN M2	2.41	3.19	1.86	2.45
Right Yin of YIN C2	3.09	2.34	1.117	2.2
Left Yin of YIN M1	3.61	2.77	2.048	2.14
Left Yin of YIN C2	3.09	1.49	1.304	2.01
Right Yin of Yin BL	1.55	0.85	5.06	1.64
Right Yin of YIN M1	0	2.77	2.24	1.57
Right Yin of YIN E	1.03	1.28	4.67	1.51
Left Yin of YIN C1	0.52	2.98	0.75	1.32

Abbreviations: HNP, herniated nucleus propulsus; LR, lumbar radiculopathy; and LBP, somatic dysfunction/low back pain.

**Table 2. Frequency of Use for YNSA Ypsilon Quadrants**

Yang of YANG	1.6%			
Yang of YIN	3.8%			
Yin of YANG	8.2%			
Yin of YIN	86.4%			

Abbreviation: YNSA, Yamamoto New Scalp Acupuncture.

treatments required on average to more permanently relieve pain was 3.17 visits per patient (HNP: 5.27, LR: 2.42, and LBP: 1.82). [Table 1](#) lists frequencies of 10 most common Basic and Ypsilon points used. Ypsilon point frequency was decidedly in favor of Yin of YIN at 86.4%, with the least being Yang of YANG 1.6% (Table 2).

## DISCUSSION

The data presented here of herniated nucleus propulsus, lumbar radiculopathy, and mechanical LBP offer material support for the contention that YNSA is an effective form of microsystem acupuncture that appears to be successful in relieving acute and chronic LBP from a variety of causes. This may be the first study to verify what Dr Yamamoto has been teaching his students for more than 20 years. While relatively unknown in the United States, YNSA deserves recognition and further research into its reliability and validity as well as its compatibility with other forms of treatment. YNSA is another form of acupuncture that complements the traditional Chinese medicine (TCM) teachings while providing new insights into the electromagnetic circuitry of the body.<sup>4</sup>

The most common Basic and Ypsilon points needing treatment are found in Yin of YIN. The distribution of the 4 phases of YNSA were as expected (Tables [1](#), [2](#)) based on YNSA theory, which states that most common findings for Ypsilon treatment are Yin of YIN. The next most common quadrant being treated in all cases was Yin of YANG, then Yang of YIN, and the least commonly used was Yang of YANG.

The leading Ypsilon point required by YNSA neck diagnosis was Gallbladder (GB). The GB meridian is the controller of the soma of the body, tendon, fascia, and muscles in TCM theory; it would logically, from a TCM perspective, fit into that paradigm.

The most common basic point was logically the D 1-6 point for lumbar spine anatomy; neurology, myofascial, and osteology. The percentages were exactly the same for left and right side. D1-6 was by far the most significant point in treating all types of LBP studied.

The use of A point (cervical) and M2 (cerebrum), M1 (basal ganglia) was higher in LBP with neurological involvement than with only mechanical LBP. This makes sense in that the neurobiological feedback mechanism is present when the spinal nerves are irritated by chemical and/or anatomical means, and the YNSA Basic points provide a positive effect. On the other hand, mechanical LBP due to myofascial-articular sprains and strains associated with somatic dysfunction was found to require treatment with D1-6 first and then Ypsilon (meridian) points, and not usually the Basic points.

This study describes the frequency of visits for each LBP entity and the number of needles used on average to achieve pain relief. The documentation supports the contention that YNSA is an effective adjunct in eliminating pain whether it is from biomechanical, inflammatory, or anatomically compressive spinal neurological pain.

Osteopathic manipulation was used to address the biomechanical component of the disease. The use of osteopathy for all cases had an effect on modifying the physiology, changing joint motion, function, and pain. Then, since the pain was not 100% relieved after the first manipulation, YNSA was used to treat the patient from a bioelectrical/energetic perspective. This self-selection criterion causes a bias for more difficult cases to be treated with YNSA.

The limitations of this study are multiple, namely, that it is a retrospective study of 115 patients selected and not randomized. Second, those patients agreeing to acupuncture may have been treated by this method before and have had expectations that could cause a placebo effect. Third, the accuracies of documentation include lack of a visual analog pain scale on each visit. Fourth, other complementary treatments were used, which could have had an effect on the patient's physiological response in addition to the acupuncture. Finally, pharmaceutical treatment was used in some cases. More study is warranted in the new area of scalp acupuncture.

### CONCLUSION

The use of YNSA scalp acupuncture has been shown to be effective in reducing LBP, resulting in immediate relief with a minimum of needles, usually 6 or fewer. The most frequent Basic acupoint used was D1-6; the Ypsilon point was GB, located in the Yin of YIN quadrant. YNSA provides a check-and-balance system with immediate input and response to and from the patient with the YNSA neck diagnosis method. The 4 quadrants of the Ypsilon points were found to be most common in Yin of YIN, Yin of YANG, Yang of YIN, and then Yang of YANG.

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