

Home
M-Test
M-Test
Procedure
NAJOM
Topics
Blog

North American Journal of Oriental Medicine

This thesis was carried with the permission of NAJOM.

The Meridian Test: Acupuncture Treatment Based on Assessment of Movement

Mukaino Yoshito

1. Introduction

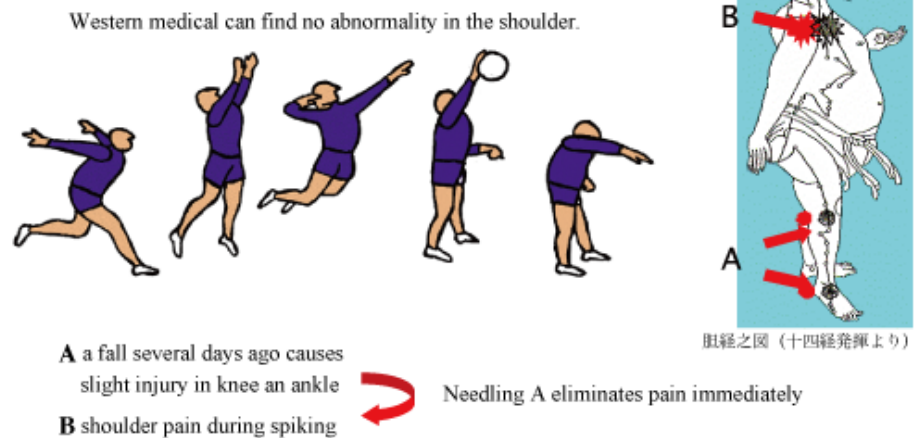
The meridians and acupuncture points discovered by our ancestors have been described as a primitive signal transmission system by Manaka Yoshio M. D.¹ The primary components of this system are distributed over the whole body like a transportation network. The meridians can be compared to railway lines, and the points to stations. Their organization is similar to railway networks, and the pathways are complex and densely interwoven. Even though a person may not be aware of abnormalities in this network, it can produce various symptoms. It is probable that early detection and daily correction of abnormalities could play an important part in the maintenance of our health as well as successful treatment. Most of the methods devised and employed up until now to detect these abnormalities, however, are not so easy to master.

I have treated many college athletes using acupuncture and moxibustion at my clinic next to the gym since 1989 when I was transferred to the Department of Sports and Health Science from the School of Medicine. In 1992 I had a sudden inspiration and created a method for identifying the abnormalities that needed treatment. It is a method of assessment based on finding the movements that cause or aggravate pain. With this method the meridians and points to be treated can be decided quickly and precisely. It is also useful as a measure of treatment outcome, and it is possible to monitor the continuously changing pathological condition. I have used this method for various conditions other than musculoskeletal problems at the University Hospital where I also worked. Thus I have confirmed that this method can serve as a standard modality. I named this method the Meridian Test^{2,3,4} (we've been calling it the "M test" since 2007) and have used it extensively in my clinical practice. It is a simple method that elucidates the abnormalities in meridians and points in terms of a series of physical movements. Anyone can learn to use the Meridian Test because it is easy to understand and it can serve as a valuable first step for treating pain and maintaining health.

2. Meridians and points and the movements related to the occurrence or exacerbation of pain

I will explain how the meridians or "signal transmission system" is involved in movement by using the example of shoulder pain that occurs in a volleyball player during a spike (Fig. 1). In the case of this shoulder pain (B), no abnormality could be found in the shoulder itself, and the cause of pain was a mystery. However the player had taken a fall blocking a spike several days before that and had slightly injured his knee and ankle (A). He wasn't aware of any pain in the injured areas, but marked tenderness was noted. Needling the shoulder area (B) had no effect whatsoever, but needling the injured area (A) instantly eliminated the pain during the spiking motion. As shown in the figure, the meridian that goes through the injured area runs up the lateral aspect of the thigh to the lateral thoracic region, and goes up around the shoulder to the side of the head.

FIG.1 Shoulder Pain during spiking: 19-years-old Volleyball player



The meridians and points are related to manifestation of symptoms.
(from Keiraku Tesuto-ni-yoru Shindan-to Hari-chiryō, by Mukaino Yoshito)

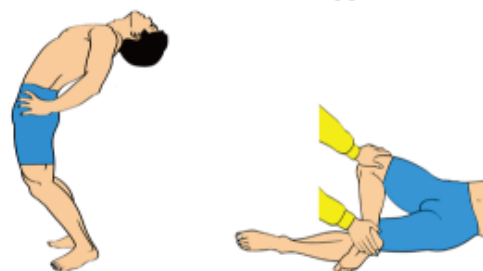
In the above case, the injury in the lower leg (especially around GB-40 and GB-34) triggered an imbalance in movements of areas along the course of the same meridian. The pathological mechanism can be understood as the added strain of the spiking on the shoulder serving as the exciting cause of pain. Aside from cases of sports injury like this, the same mechanism applies to pain and symptoms that come from movements in daily life. The pathological mechanism of meridian imbalances causing restrictions and pain in movement in other parts also applies to symptoms that cannot be explained by modern medicine.

Figure 2 shows a case where low back pain did not resolve for a long time even after the patient received laser surgery for a herniated disk. As shown in the figure, the Patrick's test on the right and posterior flexion exacerbated the back pain. The abnormal meridians can be identified just from these two findings, and giving acupuncture to the corresponding points cured the back pain.

FIG.2 Herniated disk: 53-year-old female

Low back pain remains after laser surgery

Movements causing pain



Treatment of meridians related to movements → Cure

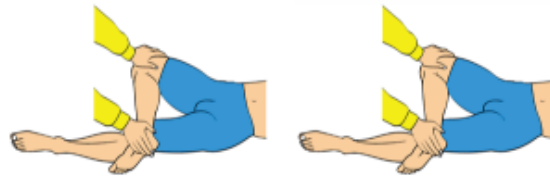
Identifying the movements that exacerbate the pain after surgery

Some practitioners tend to think that this approach is useful only for musculoskeletal problems because the diagnosis and treatment is based on movements of the body. It is my experience, however, that imbalances in physical movements are often associated with diseases other than musculoskeletal problems. Figure 3 shows the case of a 65-year-old man who continued to experience burning pain during urination and nocturnal polyuria after three laparoscopic surgeries for prostatic hypertrophy. The Patrick's test on the left side was positive for this patient, and needling points on the meridians associated with this movement alleviated the symptoms in just two treatments.

FIG.3 Burning pain in urethra: 65-year-old male

Three surgeries for prostatic hypertrophy

Burning pain during urination; urinates about 20 times a night.

**Pain in low back (+)****Pain in low back (-)**

Effective for pain and nocturnal polyuria after prostate surgery

In this way, the chain reaction of abnormalities in movement is related to the occurrence of symptoms. Giving treatment based on my premise that imbalances in movement are associated with the improvement or exacerbation of pre-existing conditions allows more effective treatment of cases that don't respond to medical treatment or those in which the effect was limited.

3. How to work with the relationship between movement, meridians, and points

Looking the 12 regular meridians, the pathways and their points basically consist of three groups that are located on the anterior, posterior, and lateral aspects respectively. Each of these aspects can be divided into superior and inferior halves, so basically there are six sectors. By designating movements that stretch the meridians and points in each of these sectors, we can identify the meridians and points that are abnormal. In this way we can detect abnormalities that the patient is not aware of. Figure 4 shows the sequence of movements for the Meridian Test. Only the movements to the right are shown in this chart, but movements in both directions are shown in the table for Meridian Test findings (Fig. 5). One can quickly determine which sector has the problem by noting reactions of pain, tightness, fatigue, or other abnormal sensations with each movement. We also consider it a positive finding when the movement causes dizziness or shaking, or we note a difference between the right and left sides in range of motion or resistance to movement. The findings are each rated on a scale of 1 to 10, and treatment of the findings with the highest score takes precedence. Often the various minor findings naturally resolve when the most significant findings are treated.

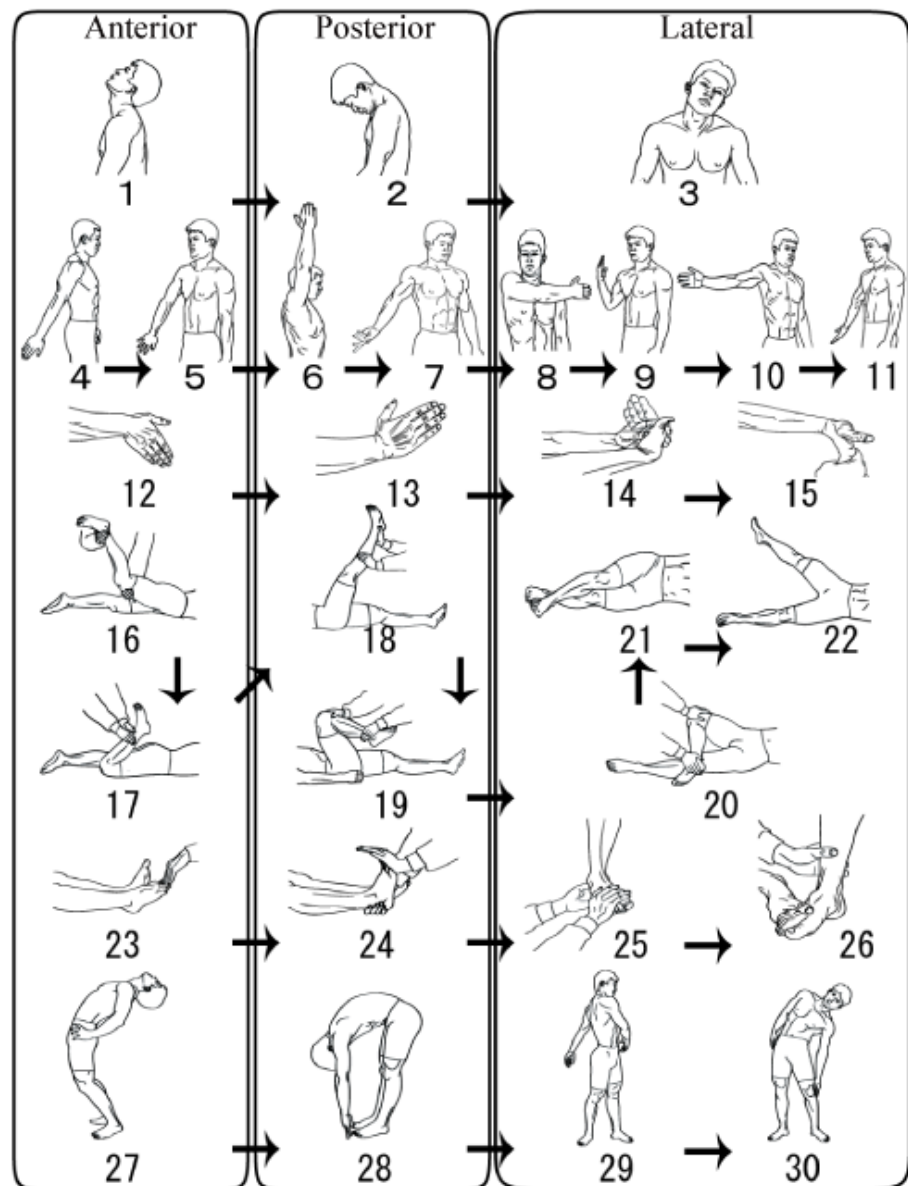


FIG.4 Movement sequence of Meridian Test

(from Keiraku Tesuto by Mukaino Yoshito)

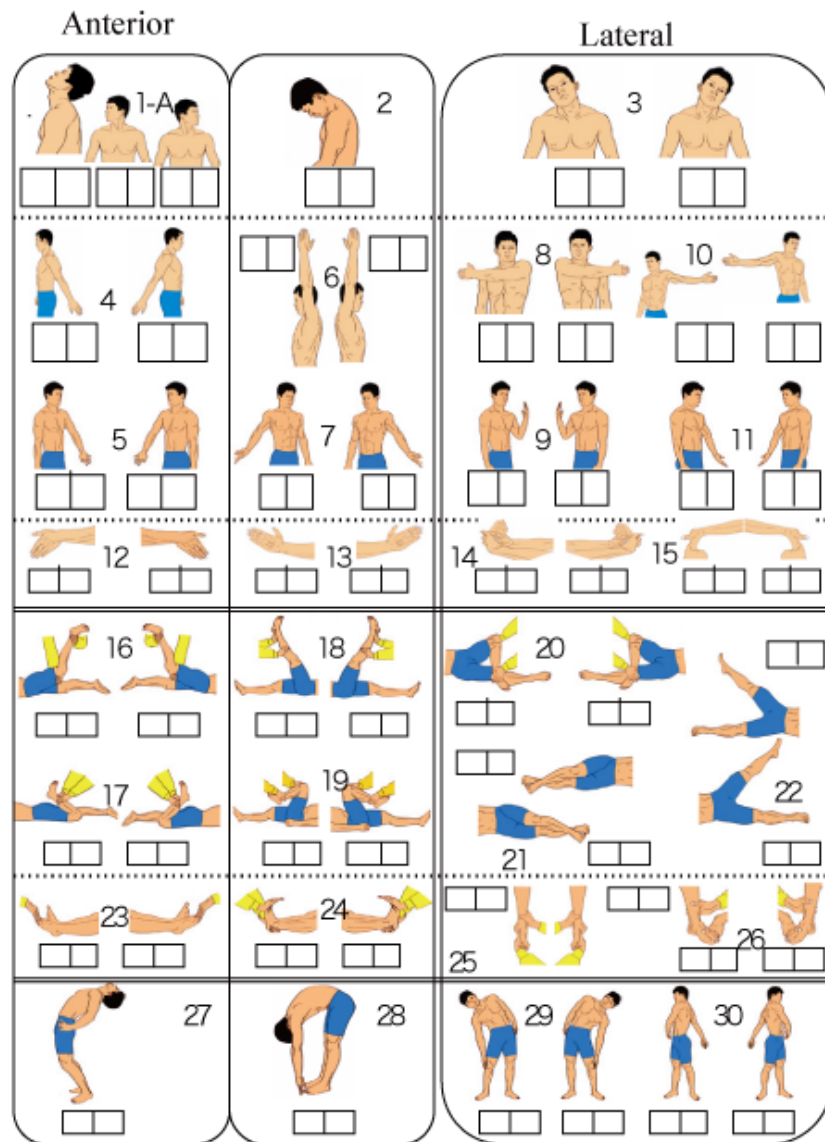


FIG.5 Meridian Test Findings Chart

(From Keiraku Tesuto by Mukaino Yoshito)

The numbers below the movements indicate the order in which the movements are performed. There are several variations to the neck movements 1 to 3, and these variations are performed where appropriate. The movements of the legs 16 and 17 are done in sequence, and it's most efficient to have the patient to turn over and lie supine to perform movements 18 through 22. Even when the Meridian Test movements are done carefully to confirm abnormal findings, they can be completed in about 10 minutes.

4. All Meridian Test movements are combinations of basic movements that stretch the meridians and points

Figure 6 shows the Meridian Test Findings Chart on the right and a baseball pitcher winding up on the left. Observing the movement of individual joints we find that they each correspond to one of the Meridian Test movements. This applies not only to baseball but other sports and movements in daily life. In other words, the movements that we make can be called a combination of basic movements that stretch the meridians. A movement that is repeated over and over generates fatigue in the aspect that is stretched, and in all probability this influences the linked movements in the same meridian group. It follows that the occurrence of pain and decline in performance among athletes, as well as the exacerbation and amelioration of various symptoms and diseases of working people are most likely under the influence of imbalances in movement linked by the meridians.

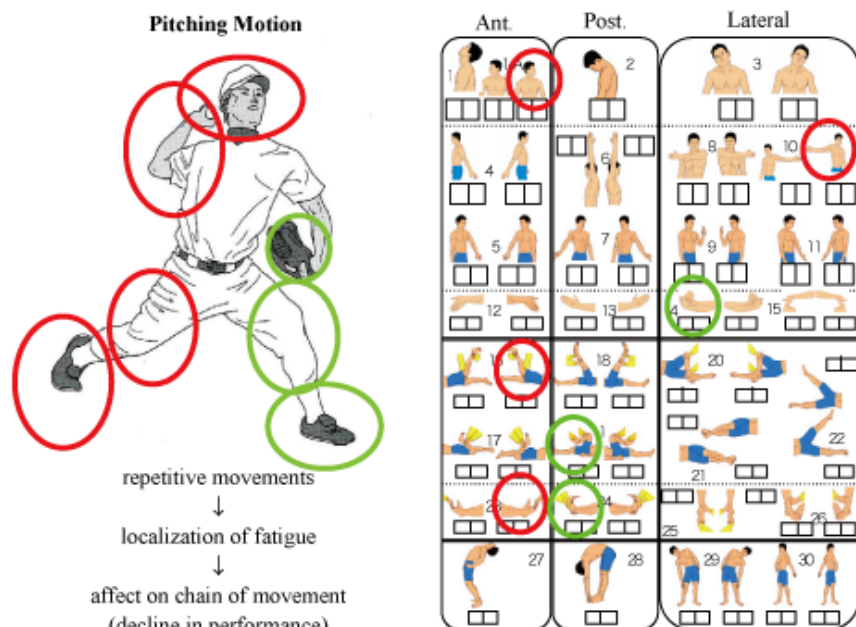


FIG.6 All movements are combination of basic movements

5. A different parameter for assessing disease

We obtain a different parameter for assessing disease when the meridians and points are examined through movements. I will explain how this works by presenting three cases I treated one fall (see Fig. 7). The patient's symptoms were shoulder pain, dizziness, and numbness around the elbow from peeling chestnuts. The main Western medical tests performed in each of the cases are listed in the figure. In each case the movements aggravating the pain, which were identified by the Meridian Test, were those that stretched the Lung and Large Intestine meridians (see Fig. 8). Since these findings represented abnormalities of the same meridians, the same treatment principle was used. In each case the symptoms resolved with one or two treatments.




3 related cases		
	Western medical tests	Meridian Test movements increasing pain
③ Female 35 Shoulder	Shoulder joint XP, CT scan, MRI, etc.	
② Female 54 Dizziness	Equilibrium function test, MRI, etc.	
① Female 65 Elbow numbness	Neurological tests, cervical vertebrae XP.	

FIG.7 A different parameter for assessing disease

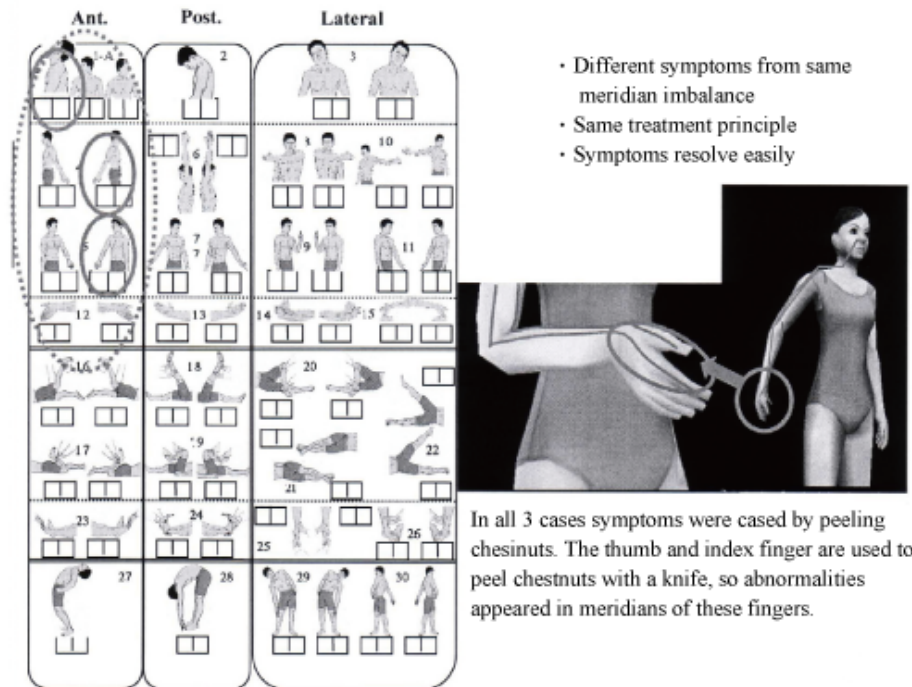


FIG.8 What can be learned using a different parameter

To peel chestnuts with a knife, one uses the thumb and index finger the most. Repeating this action over and over caused abnormalities in movement along the Lung and Large Intestine meridians, which terminate in the thumb and index finger. This is what caused the various symptoms in these three cases. The influence on the same meridians differed due to differences in the patients' bodies and the ways in which they peeled the chestnuts. This is no doubt what led to the manifestation of different symptoms. Checking a series of movements that stretch the meridians in order to examine a patient gives us a different parameter with which to assess diseases and symptoms.

6. Locating effective points

In my treatments utilizing the Meridian Test I use a variety of points including distal points on the arms and legs (e.g. Luo Connecting, Xi Cleft, Five Phases points), as well as points in large muscle groups, and those on the torso like Front Mu and Back Shu points. I also use points on the spine and in the pelvis as well as auricular points. The effective points among these must be located. The points associated with the meridian judged to be abnormal by the problematic movements are pressed lightly with a finger as the same movement causing the pain is repeated. For example, when the movement that causes the greatest pain is dorsiflexion of the ankle, as shown in Fig. 9, points of the Kidney and Bladder meridians that are stretched by this movement become the focus of treatment. So points on these meridians are pressed one after another as the same movement is repeated. When pain or other symptoms (e.g. range of motion) is markedly improved with the application of finger pressure, the point is judged to be effective. It is fine for the points tested in this manner to be based on the practitioner's experience, but we generally use the following order in testing points.

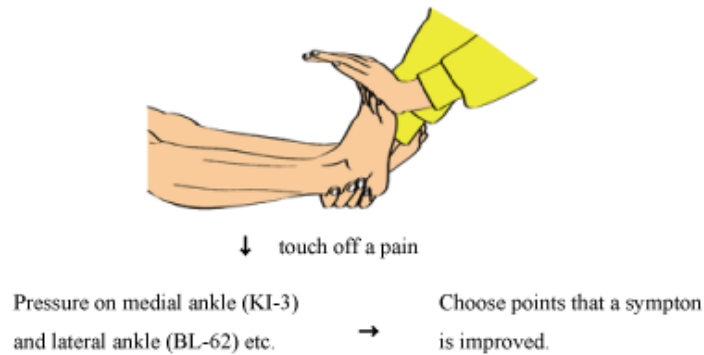


FIG.9 Confirming effectiveness of points

(from Keiraku Tesuto by Mukaino Yoshito)

First we use the Five Phases points, and if this doesn't resolve the problem we use Luo Connecting and Xi Cleft points. Then we try points in large muscle groups of the upper arms or thighs, and then points on the torso like Front Mu and Back Shu points. Finally we try cranial points, and points in the spine and pelvic area as well as auricular points. In order to increase the effect we may use a combination of these points. We also use Yin-Yang crossover point combinations (see below) as much as possible. The point location and combinations vary by the condition treated, but the Five Phases points are most useful in terms of understanding the effect.

7. Application of Five Phases points to correct abnormalities in movement

The Five Phases point selection based on chapter 69 of the Classic of Difficulties (Nanjing) 5, 6 uses a total of 24 points, two points each from each of the 12 meridians (see Table 1). Sometimes a combination other than these 24 points is used to increase the effect. I will explain the characteristics of these points by discussing case histories.

TABLE1 Five Phases point combinations used in Meridian Test

Yin Meridians		
Wood & Fire	LV-2	HT-9 & PC-9
Fire & Earth	HT-7 & PC-7	SP-2
Earth & Metal	SP-5	LU-9
Metal & Water	LU-5	KI-7
Water & Wood	KI-1	LR-8
Yang Meridians		
Wood & Fire	GB-38	SI-3 & TB-3
Fire & Earth	SI-8 & TB-10	ST-41
Earth & Metal	ST-45	LI-11
Metal & Water	LI-2	BL-67
Water & Wood	BL-65	GB-43

Figure 10 shows the case of a 59-year-old Belgian man who had pain in both shoulders for over a year. This pain was not relieved no matter how many places he received treatment, and the cause of the pain was unknown. Lateral rotation of the arm in a horizontal position aggravated the pain, and in this case PC-9, PC-7, TB-3 and TB-10 were candidates for treatment. I had to determine the most effective point among these, so I had the patient repeat the movement that aggravated the pain as I lightly pressed a point with a finger. I repeated this on the other three points to find out which one relieved the pain the most. For this patient PC-7 and TB-10 (the points circled in the figure) reduced the pain aggravation. These are points on the Pericardium and Triple Burner meridians of the arm. After treating these points, I also stimulated the Five Phases combination points on the Spleen (SP-2) and Stomach (ST-41) meridians of the leg. This immediately relieved the shoulder pain. I asked the patient, "By the way, what have you been doing everyday?" He told me he had been doing 50 pushups everyday from a year ago.

The points I treated were in areas that are stressed by pushups (see Fig. 11). From a Five Phases perspective, it can be understood as points that correspond to the relationship of the lateral aspect of the arm (Fire) and the anterior leg (Earth).

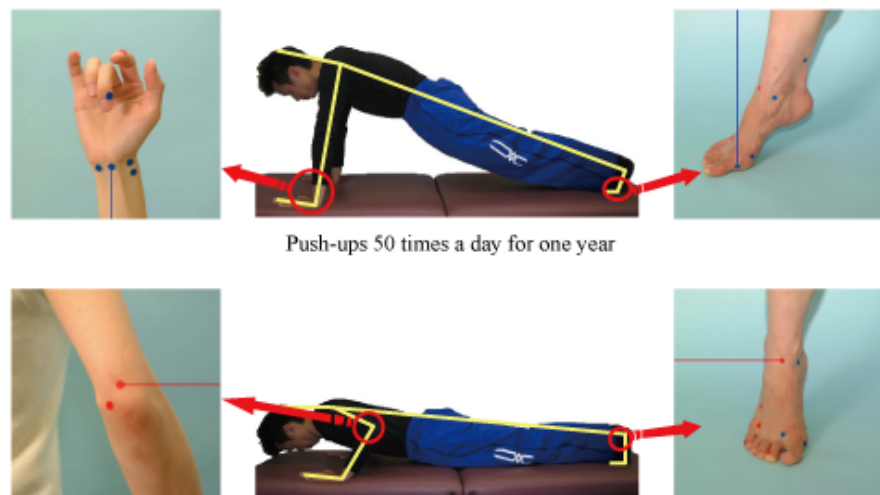
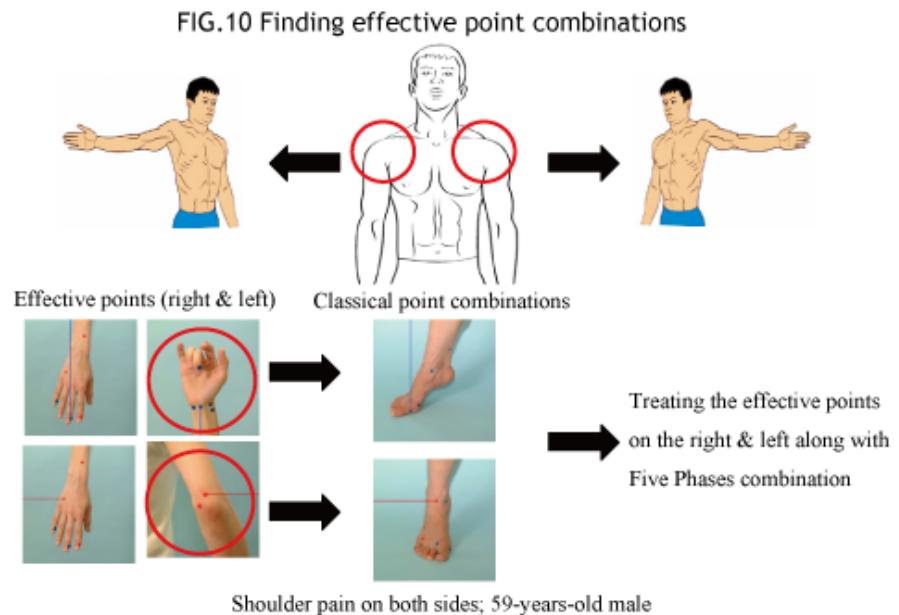


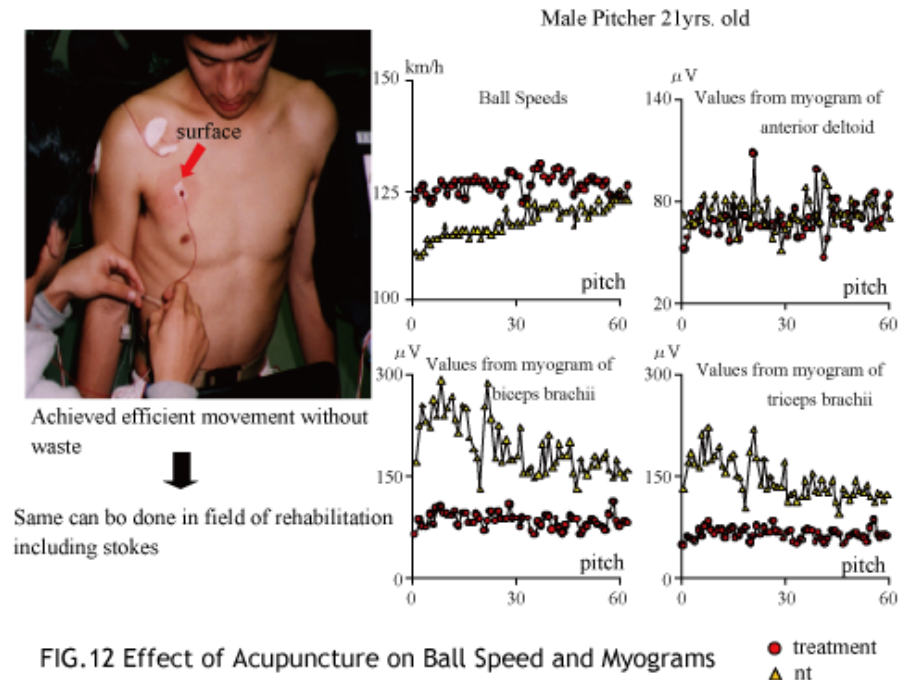
FIG.11 Relationship of effective points for shoulder pain

Examining the effect of Five Phases point combinations on various patients, often the stimulation of points that are located in areas stressed by movements that aggravate the pain is most effective. The insight possessed by the ancient acupuncturists is astounding. By applying the wisdom of the ancients, we can gain detailed information about the mutual relationship of movements in the arms and legs as well as its relationship to disease in individual cases. I believe this perspective opens a new path for treating diseases and improving and maintaining health.

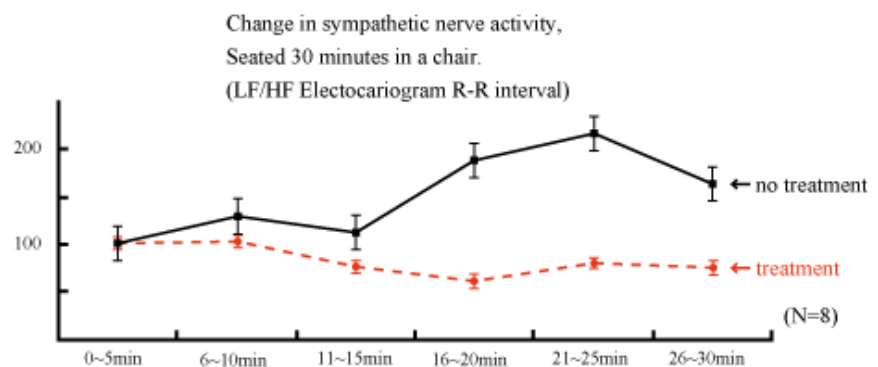
8. What can be achieved by improving abnormal movements?

Figure 12 shows the improvement in a pitcher's performance through acupuncture after abnormal Meridian Test movements have been identified, even though he was not aware of any problems. Pitchers repeat the same movement over and over, and fatigue accumulates in one area in the chain of movement as the number of pitches increases. This probably affects the entire chain of movement and decreases performance. By improving the abnormal Meridian Test movements with acupuncture, the pitching speed consistently increased. Myograms of the shoulder - area muscles used during a pitch showed little change in the case of the deltoid, trapezius, and the pectoralis major, but the electrical discharge of the biceps and triceps was notably reduced. It is assumed that the reduced load on the biceps and triceps as well as the

increase in pitching speed occurred because the acupuncture produced smoother and more efficient movement.



Stiffness in the neck and shoulders, which many people experience, produce abnormalities in movements, especially of the neck. We studied the activity of the autonomic nervous system by comparing people treated for neck and shoulder stiffness and those with untreated neck and shoulder stiffness. For this study the heart rate variability of the subjects seated for 30 minutes in a chair was recorded. The sympathetic nerves remained activated (higher heart rate) for subjects with untreated neck and shoulder stiffness (Fig. 13). The subjects that were treated did not have sympathetic nerve activation, but instead their parasympathetic nerves associated with relaxation were active.



With many diseases, the excitation of the sympathetic nerves (which become active in stressful situations) becomes the exciting cause. Therefore regular acupuncture treatments to reduce tension and make physical movements smooth could be an effective way of achieving the ancient ideal of treating diseases before they manifest. Often the occurrence and aggravation of symptoms like pain are associated with abnormalities in movement. Such abnormalities often go unnoticed by the patient, but information for rendering treatment with instantaneous results can be obtained when we examine these abnormal movements from the perspective of the signal transmission system of meridians and points. This approach is not limited to management of symptoms caused by fatigue from daily or repetitive movements, but extends to symptoms and structural problems where the cause is unclear. We can detect problems in the early stage in the signal transmission system of meridians by finding abnormalities in movement. I believe that this approach of regularly treating such abnormalities will provide a

valuable first step in the treatment of disease and health maintenance.

NOTE: Yin-Yang crossover point combination is the use of points on the opposite meridian in a Yin-Yang and Five Phases relationship. For example, if the Lung meridian on the left is indicated by the Meridian Test, then points on the Stomach or Bladder meridian on the right are also treated. Therefore, when LU-5 on the right is judged to be the effective point, BL-67 on the right can also be treated.

References

1. Manaka Yoshio with Itaya Kazuko & Stephen Birch, ***Chasing the Dragon's Tail***, Paradigm Publications, 1995.
2. Mukaino Yoshito, et. al., "The Meridian Test: A new method of defining effective meridians for the treatment of painful disorders of the neck by acupuncture" Proceedings of the FISU/SESU conference, the 18th Universiade in Fukuoka, 1995, p. 498-499.
3. Mukaino Yoshito, et. al., ***Keiraku Tesuto (Meridian Test)***, Ishiyaku Shuppan, Tokyo, 1999.
4. Mukaino Yoshito, ***Keiraku Tesuto-ni-yoru Shindan-to Hari Chiryō*** (Diagnosis and Treatment Using the Meridian Test), Ishiyaku Shuppan, Tokyo, 2002.
5. Shudo Denmei, ***Introduction to Meridian Therapy***, Eastland Press, 1983.
6. Kosoto Takeo & Hamada Toshiyuki, ***Ishaku Hachijyu Ichi Nangyo*** (Commentaries on the 81 Difficulties), Tsukiji Shoten, Tokyo 1974.

Mukaino Yoshito M. D. was born in 1947 and was licensed as a medical doctor in Japan in 1971. In 1979, he studied acupuncture for 3 months at the Shanghai Zhong-yi College. He became a professor in the Sports Science Department at Fukuoka University in Japan. He also studied Pathophysiology for a year in Gettingen, Germany and EBM for a year in Exeter, Great Britain. He is Chairman of the National Licensing Committee for Acupuncture in Japan.

Copyright © Yoshito Mukaino. All Rights Reserved.