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Treatment of Fibromyalgia Syndrome with Traditional Chinese Medicine

Guanhu Yang^a, Shan Liang^b, and Hui Wei^c

^aAcupuncture Wellness Center of Mason, 8583 Unit 5, Mason Montgomery Rd. Mason, Ohio, 45040, USA ^bCenter for Acupuncture & Oriental Medicine, 1219 East Avenue South Suite 206, Sarasota, FL 34239, USA ^cWei-Acupuncture, 5804 Jog Road, Lake Worth, FL 33467 e-mail: guanhuyang@gmail.com

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Abstract—This article discusses fibromyalgia syndrome (FMS) from both conventional and Traditional Chinese Medicine (TCM) perspectives. It offers TCM management options that can substantially improve treatment outcomes.

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Understanding FMS is crucial due to its complexity of possible causes as well as its comprehensive involvement of many systems of human body. There is usually some level of dysfunction in the central nervous, immunologic, and endocrine systems which is superimposed upon the malfunction of many organs. In short, conventional medicine has not yet fully understood either the etiology or the pathophysiology of FMS. Thus, it has been a challenge to manage and cure FMS satisfactorily.

Today, both physicians and patients have experienced tremendous frustration from the poor treatment outcomes with the convention methods, as well as the enormous economic burden incurred by ongoing medical costs and loss of income. Even the insurance industry has been severely challenged by the mighty costs generated by this condition. This predicament has created the need to conceptualize a new approach to provide a better method to manage FMS. The objective of TCM treatment principles is to create a healthier homeostasis by identifying and correcting body's imbalances at the different stages. Further, it also responds to increased imbalance needs, which were caused by the disease process.

1. UNDERSTANDING FIBROMYALGIA

Fibromyalgia impacts the quality of life for many people today. According to University of Florida Center for Musculoskeletal Pain Research, more than 12 million Americans have Fibromyalgia Syndrome (FMS) today. Most of them are women in age from 25 to 60. Study also indicated that women are 10 times more likely to develop Fibromyalgia than men [1]. Fibromyalgia Syndrome was firstly recognized in 1816 by William Balfour, M.D, a Scottish Surgeon. For most of the intervening years, the disorder has been given different names, and has even been attributed to psychological problems. Only in 1987 did the American Medical Association recognize Fibromyalgia as a true illness. Even today, few medical schools teach the tender-point examination that the American College of Rheumatology considers as a crucial diagnosis criteria for a definitive diagnosis for Fibromyalgia Syndrome.

Fibromyalgia is referred as a syndrome as it in clinic presents as a collection of symptoms and signs. The primary symptoms of Fibromyalgia include chronical, widespread musculoskeletal pain and stiffness. Patients can also experience other symptoms such as sleep disorder, anxiety and fatigue. There is no test to detect Fibromyalgia, although X-Rays or MRI may be used to rule out other health problems. This creates challenges in diagnosis of Fibromyalgia even though diverse diagnostic criteria have been developed. Fibromyalgia is different from Arthritis, Rheumatoid Arthritis, and Systemic Lupus Erythematosus (SLE). It is not a simple inflammation, nor a psychological disorder.

In summary, Fibromyalgia is a complex chronical condition, whose cause is yet unknown. It may be associated with injury, virus or bacterial infection, immune system dysfunction, hormone imbalance, psychological stress and other undetermined causes. Fibromyalgia can be difficult to treat. There is no quick remedy to cure Fibromyalgia. However, Traditional Chinese Medicine including Acupuncture and Chinese Herbology has been shown effective in treat Pain and symptoms over the past week, based on the total of: Number of painful areas out of 18 parts of the body
 Plus level of severity of these symptoms:

 Fatigue

Waking unrefreshed

• Cognitive (memory or thought) problems Plus number of other general physical symptoms

2. Symptoms lasting at least three months at a similar level

3. No other health problem that would explain the pain and other symptoms

Source: American College of Rheumatology, 2010 [3].

ing with the symptoms of Fibromyalgia based on research and clinical studies [2].

2. DIAGNOSIS OF FIBROMYALGIA

Based upon the definition of American College of Rheumatology, Fibromyalgia is diagnosed by the following criteria given in Table 1.

In regards to the criterial summarized by American College of Rheumatology, practitioners and doctors may consider the diagnosis of Fibromyalgia Syndromes when the following conditions are met:

(1) Patients have a history of widespread musculoskeletal pain for at least 3 months.

(2) Patients responded pain in 11 of 18 tender point sites. The amount of pressure exerted by the examiner's thumb was to be approximately 4 kg/cm^2 . Fur-

ther, a positive tender point could only be classified if the patient responded of having pain, rather than feeling tenderness.

Below (see Fig. 1) is a commonly used tender points diagnosis chart for Fibromyalgia Syndromes.

The 18 tender points are scattered over the neck, chest, back, elbows, knees, buttocks and hips. The tender point method can also be applied with Traditional Chinese Medicine theories when used for diagnosis of Fibromyalgia. Each set of tender points per the American College of Rheumatology, correlates to certain regular meridian acupuncture points. Such tender points are often located on the Gallbladder Channel, the Small Intestine Channel, the Large Intestine Channel, the Kidney Channel and the Liver Channels. Using similar examination techniques, Traditional Chinese Medicine Practitioners can apply

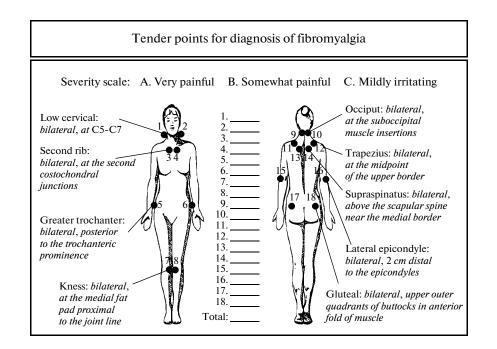


Fig. 1. Anatomic location of tender points according to the American College of Rheumatology 1990 classification criteria for Fibromyalgia.

Tender point	Tender points per American College of Rheumatology	Corresponding acupuncture points	
1, 2	At the anterior aspects of the inter-transverse spaces between C5 and C7	LI-18 (Fu Tu)	
3, 4	At the 2nd costochondral junctions, on the upper surface, just lateral to the junctions	K-25 (Shen Cang)	
5, 6	Posterior to the prominence of the greater trochanter (piriformis insertion)	GB-29 (Ju Liao)	
7, 8	On the medial aspect of the knees, on the fatty pad, proximal to the joint line	Liv-8 (Qu Quan)	
9, 10	At the suboccipital muscle insertions (close to where rectus capitis posterior minor inserts)	GB-20 (Feng Chi)	
11, 12	At the midpoint of the upper border of upper trapezius muscle	GB-21 (Jian Jing)	
13, 14	At the origins of supraspinatus muscle above the scapula spines	SI-13 (Qu Yuan)	
15, 16	2 cm distal to the lateral epicondyles of the elbows	LI-10 (Shou San Li)	
17, 18	In the upper outer quadrants of the buttocks in the anterior fold of gluteus medius	GB-30 (Huan Tiao)	

 Table 2. 18 Tender point comparison between TCM and Western Medicine

approximately 4 kg/cm² of pressure through their thumbs on corresponding acupuncture points to identify positive tender points.

Refer to the Table 2 for a comparison of the tender points identified by the American College of Rheumatology and the acupuncture points per Traditional Chinese Medicine theories. All numbers used within the table are consistent with the chart above.

Clinically, in TCM Vital Shu Point UB-43 (Gao Huang), UB-25 (Da Chang Shu), UB-23 (Shen Shu), SJ-7 (Hui Zong) can also be used to identify tender points.

Due to its complex nature, Fibromyalgia can still be a challenge in diagnosis if merely relying on the Tender Point counts approach. Some argued that tender points can be interpreted differently because of changed pain sensitivity, threshold and as an indicator of distress. Nevertheless, Tender Points count approach is a clinically convenient method to recognize the possibility of Fibromyalgia Syndromes. Practitioners should also pay attention on patients' symptoms to confirm the diagnosis.

3. SYMPTOMS OF FIBROMYALGIA

The primary Fibromyalgia symptoms are chronical, widespread musculoskeletal pain, fatigue, anxiety, and sleep disorder. Such symptoms are also common to many other conditions. Additionally, besides the primary symptoms, Fibromyalgia could have a number of different accompanied symptoms such as migraines, digestive issues, depression, urinary problems and many more. Further, Myofascial Pain Syndrome (MPS), Multiple Chemical Sensitivity Syndrome (MCS) and Chronical Fatigue Syndrome often overlap with Fibromyalgia Syndrome. Many patient may have more than one syndrome. This leads to difficulty in diagnosis of Fibromyalgia. Thus, it important to not only understand the tender point technique, but also be familiar with the clinical symptoms of Fibromyalgia during diagnosis.

The primary clinical symptoms of Fibromyalgia include:

• Chronical, widespread musculoskeletal pain, muscle spasms and tightness,

- Unexplained fatigue,
- Sleeping disorders (insomnia, waking unrested).

Most patients experience some level of the primary symptoms. Such symptoms are important criterial based on the definition of Fibromyalgia Syndromes per American College of Rheumatology.

Clinically, the following accompanied symptoms are also observed among Fibromyalgia Syndromes patients:

- Tension or migraine headaches,
- Irritable Bowel Syndrome (IBS),
- Numbness and tingling feeling.
- Temporomandibular Joint Dysfunction,
- Abdominal pain,
- Bloating,
- Nausea,

• Constipation, diarrhea or constipation alternating with diarrhea,

• Joint Pain,

• Concentration and memory problems, also known as "fibro fog",

• Morning Stiffness,

• Anxiety and Depression,

• Premenstrual Syndrome,

• Numbness and tingling in hand, arms, feet and legs,

• Feeling of swelling,

• Dry month and dry eye,

- Dizziness,
- Feeling of swelling,

• Skin allergy, inflammation and burning sensation,

• Lack of muscle control,

• Urinary problems—urinary frequency, pain or urgency,

• Chest congestion and chest pain,

• Hearing loss,

• Raynaud disease.

It is important to determine if the patient's symptoms may be caused by other underlying problems, such as rheumatic diseases or other psychological and neurological disorders. Thus, diagnosing fibromyalgia often needs the effort of a group of specialists.

4. CAUSES OF FIBROMYALGIA

Fibromyalgia Syndrome may be precipitated by injury, genetics, viral or bacterial infection, exposure to strong chemicals, stress, immune system dysfunction, hormone imbalance, central nerve biochemical abnormality, and other undetermined causes. Modern medicine does not have a clear consensus about the causes of Fibromyalgia today. However, many believe that it is not a result of one single event, rather, of a combinations of complex conditions including both psychological and physical distress.

In Traditional Chinese Medicine, Fibromyalgia belongs to a specific group of consumptive disease syndromes, as well as the Bi Syndrome (Painful Obstruction Syndrome). Based upon *Inner Canon of Huangdi* · *Basic Questions* · *Theories of Bi Syndromes*, "the invasion of pathogenic Wind, Cold and Dampness will lead to an obstruction in the meridians and Bi Syndrome may take place". Bi Syndrome causes pain, heavy sensation, and limitation of movements.

However, the causes of Fibromyalgia can go beyond pathogenic Wind, Cold and Dampness. Per *Inner Canon of Huangdi · Basic Question · Discussion on Acupuncture Methods,* "Pathogenic factors can not cause trouble if the vital Qi is sufficient". Also stated in *Inner Canon of Huangdi · Basic Question · Discussion of Four Kinds of Febrile Diseases,* "Where pathogenic factors accumulate, the parts of the body must be deficient in the vital Qi". Thus, deficiency of the vital Qi, which is unable to defeat external pathological damage to the body, can also lead to occurrence of disease. In regards to Fibromyalgia Syndrome, the obstruction and deficiency of vital Qi will hinder the circulation of blood, therefore leading to symptoms such as pain from the obstructed site when pathogenic factors attack. Often this site is on an acupuncture point, or along the pathways of channels. Interestingly, the 18 tender points of Fibromyalgia Syndromes per American College of Rheumatology are also closely correlated to acupuncture points.

In summary, based upon Traditional Chinese Medicine theories, the leading causes for Fibromyalgia Syndromes and its symptoms are due to the following factors:

• Liver Qi stagnation

Liver soothes and regulates the flow of vital Qi. Smooth movement of Qi supports a healthy mental state, which helps to regulate mind and emotions. When Liver does not perform this function effectively, patients may experience anxiety, depression, and sleeping disorders.

In addition, Liver regulates and stores Blood. Blood exerts a direct influence on the movement of Qi. On the other hand, Qi is the driving force in circulation of Blood. Therefore, stagnation of Liver Qi may result in stasis and deficiency of Liver Blood. Longterm deficiency in Liver Blood may cause a deficiency of Kidney Essence, even a deficiency of the essential Heart Blood. Thus, Fibromyalgia is a condition rooted from Liver, and progressed to Spleen, Kidney and Heart.

• Spleen Qi deficiency

While Liver has the function of regulating the flow of vital Qi, Spleen has the function of transporting, distributing, and transforming nutrients within body. Such nutrients are essential to keep other organs function properly. When there is deficiency in Spleen Qi, there would not be sufficient nutrient to provide the material based for generating Qi and Blood. Patients with Spleen Qi deficiency may also experience digestive problems.

Another important function of Spleen is to maintain normal Blood circulation. Deficiency of Spleen Qi may worsen blood stasis or blood deficiency.

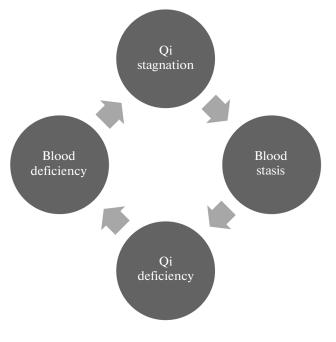
Further, Spleen controls muscles, limbs and mouth. Deficiency of Spleen Qi may develop weakened muscle, fatigue and dry mouth feeling.

Lastly, Liver Stagnation leads to Spleen Deficiency, therefore leads to difficulty in generating blood and Qi to nourish heart and liver.

• Disharmony between Qi and Blood

In Traditional Chinese Medicine, Qi is the commander of Blood, and Blood is the mother of Qi. As a result of Liver Qi stagnation and Spleen Qi deficiency, Blood and Qi is stagnated and deficient. This worsens the functions of Liver and Spleen, which causes more disharmony between Qi and Blood. Such vicious cycle ultimately weakens heart and kidney.

The following chart (see Fig. 2) explains the cycle and how each condition interferes each other.





In short, Fibromyalgia causes a broad range of stagnation of Qi and Blood in the channels and capillaries. This results in a chronical process that gradually affects the whole body's ability to perform normal functions. In Traditional Chinese Medicine, this chronic stagnation can potentially lead to any of the multitude of Fibromyalgia symptoms as explained by in the Table 3.

5. TREATING FIBROMYALGIA WITH TRADITIONAL CHINESE MEDICINE

There is no single western medicine yet to address Fibromyalgia Syndrome effectively. Nevertheless, there are many alternative treatments that are used to battle with the symptoms of Fibromyalgia. Nutritional supplement such as Magnesium, Malic Acid, DHEA, Melatonin, and CO-Q10 are believed to help with reliving Fibromyalgia symptoms. Other alternative treatments include cranial therapy, chiropractic treatments and massages. Traditional Chinese Medicine, including Acupuncture and Chinese Herbology are popular treatments for Fibromyalgia. Preliminary research has proven that patients might benefit from Traditional Chinese Medicine Treatments based on clinical research from randomized controlled trials [2].

When treating Fibromyalgia with Traditional Chinese Medicine and Acupuncture, it is important to focus on the following principles:

• Unblock the channels to reinstate the flow of Qi, thereby re-stimulating body function and eradicating pain,

- Calming mind and inducing sleep,
- Strengthening digestion function,
- Nourishing essence,

Symptoms	Causes per Traditional Chinese Medicine			
Pain	Wind, Dampness, Phlegm, Blood Stagnation			
Fatigue	Heart Qi Deficiency, Spleen Qi Deficiency, Kidney Yang Deficiency			
Sleep Disorder	Liver Qi Stagnation, Disharmony between Heart and Kidney, Blood Stagnation Disturbing Heart			
Spirits and Mental Related Symptoms	Prolonged pain, Insomnia, Anxiety, Depression, Lack of Energy			
Prostrated Symptoms	Complex Symptoms of Deficiency and Excess			

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• Balancing hormones,

• Strengthening Qi,

• Chinese herbs can also be used to eradicate viruses, eliminate toxicity and restore the balance of Yin and Yang.

To achieve such goals, Acupuncture and Chinese Herb Supplements are used to invigorate Blood and Qi to remove stasis and stagnation, which ultimately nourishes and harmonizes Spleen, Liver, Heart and Kidney. The treatment will also help to tonify vital energy and to drain the pathogens.

Clinically, there are six common patterns of Fibromyalgia based on the clinic manifestations at different stages according to differentiation of TCM that can be treated differently using theories of Traditional Chinese Medicine. The Table 4 is created to demonstrate the differences and relations between each kind of Fibromyalgia, and what Traditional Chinese Medicine treatments are recommended.

Further, to address the primary symptoms of Fibromyalgia: pain, which all types of Fibromyalgia Syndromes have in common, it is important to also consider fortifying Spleen during treatment. Spleen controls muscles. Strengthening Spleen results in stronger muscle and less pain. In order to fortify Spleen without causing stagnation, and to smooth stagnation without weakening Spleen, Yin Ling Quan is also suggested by author Guan Hu Yang, LAc., O.M., Ph.D. in treating Fibromvalgia pain. In addition, a unique method of bloodletting technique used often by author Shan Liang, DOM, AP on acupuncture point SP21 (Da Bao) with cupping often receives immediate symptom relief on FMS patient. As this point is considered the Great Luo point which controls all Yin and Yang Meridians and Collaterals on the Spleen Channel. This point is able to regular and relieve pain all over the body, treating weakness of the four extremities, improving memory and relieving fatigue. It is also is one of the major health maintenance point if massaged by patients themselves.

Besides, all different kinds of pains and skin irritation are related to heart based on Traditional Chinese Medicine theories. Thus, it is crucial to calm patients' Heart and help them obtain deep sleep. Good quality sleep will ultimately help relax patients' muscles and to relieve pain. Therefore, treating Heart is a priority when it comes to treating pain. Additionally, chronical pain causes an unbalanced Heart, which resulted in uneasy and restless feelings. So, acupuncture points on the Heart Channel, such as Shen Men, Nei Guan, and Lao Gong are often used in treatment.

Moreover, as pathogen usually intrudes into collateral in protracted disease, Blood stagnation is often observed in many types of Fibromyalgia. In this case, Xue Hai and Ge Shu can be used alternatively in treatment. Lastly, it is important to keep in mind that common acupuncture points may have limits in their pain relief effects. Therefore, it is suggested to use Luo points and Xi points from the affected channels. Practitioners can incorporate the following acupuncture points as a part of their treatment plan:

• The Hand and Foot Taiyang Channel (Yang Lao, Zhi Zheng, Jin Men, Fei Yang),

• The Spleen and Stomach Channel (Di Ji, Da Bao, Gong Sun, Liang Qiu, Feng Long),

• The Gall Bladder Channel (Wai Qiu, Guang Ming),

• Accompanied by distal end points.

6. ADDITIONAL TREATMENT RECOMMENDATIONS

6.1. Initial Acupuncture Treatment

Based upon clinical experiences, patients tend to feel tired and sore after the initial acupuncture treatment. Thus, the first acupuncture treatment should focus on being gentle. Practitioners should ask patients to drink enough water and take adequate rest after the session. If bothered, patients may use a cup of sea salt and a small cup of baking soda for bathing to relieve the sore and tiring feeling after acupuncture.

6.1. Cupping

Cupping helps to move and stimulate Qi and vital energy in our body. Thus, cupping is also a popular method to use in treating Fibromyalgia. Both stationary cupping and massage cupping can be used. When using massage cupping technique, practitioners can apply the combination of half olive oil and half Red Flower Oil to reduce fraction.

6.3. Tennis Ball Massage

Massages help to relieve the symptoms of Fibromyalgia. Patients can use tennis ball to self-massage. This is a simple and affordable solution for those who want to avoid spending too much money on massage treatments. Massages help to increase blood circulations and relieve pain. Teach the patients to simply roll a tennis ball between body and a hard surface to create pressure, and gently roll the ball around the bothered area. Patients can do this against a wall or laying on the floor, whichever is more comfortable for them.

6.4. Dietary Recommendations

Finally, patients with Fibromyalgia should have a high protein, potassium and calcium rich diet. They should also limit sugar intake in daily diet as sugar will increase inflammation in muscle. Additionally, dairy products should also be limited due to the same reason.

Diagnosis	Primary symptoms	Treatment principle	Acupuncture treatment		Chinese herb
type			tonify	sedate	treatment
Spleen Qi Defi- ciency and Liver Qi Stagnation	Loose stool, Abdomi- nal Pain, Poor appe- tite, Nausea, Digestive issues, Depression, Fatigue, Mood swings	Sooth Liver Qi and strengthen Spleen	Yin Ling Quan (SP-9), San Yin Jiao (SP-6), Pi Shu (BL-20), Zu San Li (ST-36)	Yang Ling Quan (GB-34), Tai Chong (LIV-3), He Gu (LI-4)	Xiao Yao San, Cai Hu Shu Gan San
Qi Stagnation and Blood Stasis	Pain in area of stagna- tion, Bloating, Irrita- bility, Depression, Purple Tongue, Wiry pulse, Irregular Men- struation, Menstrual blood problems	Promote Qi and activate Blood		Xue Hai (SP-10), Tai Chong (LIV-3), Ge Yu (BL-17), Yang Ling Quan (GB-34), He Gu (LI-4)	Shen Tong Sui Yu Wan
Deficiency of Both Heart and Spleen	Sleeping issues, Absent-mindedness, Palpitations, Dizzi- ness, Low Spirits, Fatigue, loss of appe- tite, Pale complexion, Pale tongue, Weak pulse	Invigorate Spleen and nourish Heart to promote Blood and Qi production	Pi Shu (BL-20), Wei Shu (BL-21), Zu San Li (ST-36), Nei Guan, Shen Men		Gui Pi Tang, Gan Mai Da Zao Tang
Wind and Damp- ness Blockage	Non fixed pain, Heavy and swollen feeling, Headache, Lack of thirst, Nausea, Diges- tive Issues, loss of appetite, Thick and sticky coating on tongue	Expel Damp- ness and Wind	Pi Shu (BL-20), Wei Yu (BL-21), Zu San Li (ST-36)	Jie Xi, Qu Chi, He Gu (LI-4)	Du Huo Ji Sheng Tang
Disharmony between Heart and Kidney	Dizziness, Forgetful- ness, Dry mouth and throat, Anxiety, Palpi- tation, Tinnitus, Rest- lessness and Insomnia, Feverish sensation, aching and weakness of loins and knees, Red- dish Tongue	Harmonize Heart and Kidney	Shen Shu (BL-23), Xin Shu (BL-15), Tai Xi (KD-3), Shen Men (HE-7), Guan Yuan (REN-4)		Huang Lian E Jiao Tang, Tian Wang Bu Xin Dan
Yang Deficiency of Spleen and Kidney	Cold limbs, Thin and emaciated body, fatigue, Coldness and pain feeling, Poor appetite, Loose stool or Diarrhea, Urination problems, Erectile dysfunction, Infertility, Pale tongue, Weak pulse	Warm and tonify Spleen and Kidney	Shen Shu (BL-23), Pi Shu (BL-20), Tai Xi (KD-3), Zu San Li (ST-36), Guan Yuan (REN-4)		Zhen Wu Tang, Bu Zhong Yi Qi Tang
Deficiency of Yin and Yang	Feverish sensation on hands, feet and chest, Night sweat, cold limb, sleeping problems, Dream disturbed sleep, pale tongue, sink and slow pulse	Tonify Yin and Yang	Shen Shu (BL-23), Tai Xi (KD-3), Zhao Hai (KD-6), Guan Yuan (REN-4), Min Men (DU-4)		Er Xian Tang, Bu Zhong Yi Qi Tang

Table 4. Fibromyalgia TCM treatment guide

CONCLUSIONS

It normally takes three to six months of treatment before seeing improvement. However, some patients may be fully recovered after six months of Traditional Chinese Medicine care. In addition to the Acupuncture and Chinese Herb Supplement treatments, patients should try to keep a healthy life style and battle Fibromyalgia with a positive attitude.

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