



Medical Record

Hormone-dependent high fever treated with umbilicus moxibustion and acupuncture^{*}Xu-hao LI (李旭豪), Xin MA (马欣), Xi-qing XUE (薛玺情), Ji-guo YANG (杨继国)^{*}

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ABSTRACT

The combined treatment with umbilicus moxibustion and acupuncture achieves the significant effect on hormone-dependent high fever. The medical case was recorded so as to provide the approach to the clinical treatment or the reoccurrence control of this disease.

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A male patient, 75 years old, retiree. Date of the first visit: July 25, 2017. Chief complaints: fever due to the invasion of the exogenous wind and cold for over one month. Medical history: chronic bronchitis and emphysema for over 30 years, unknown medication treatment. When he was young, he stayed up late through the year because of his occupation and he had weak constitution, irritability, sweating combined with cold feeling in the lumbar and abdominal region, even had diarrhea. About one month ago, due to the invasion of the exogenous wind and cold, he got high fever, aversion to cold, cold limbs, nasal obstruction, cough, running nose, stiffness and pain of neck and occipital region, combined with lassitude and shortness of breath. He was firstly treated with western medicine (WM) for about half a month and the symptoms above were relieved except high fever. He had taken aspirin orally, 50 mg, three times a day, but the effect was not satisfactory. Metamizole sodium nasal drops were used afterwards, but the effect was still not remarkable. The patient received the tests with CT scan, bone marrow aspiration and blood routine examination and the results were all normal. Hence, the patient had taken hormone (dexamethasone) at a large dose to control the body temperature. But the temperature was increased rapidly up to 39.5 °C whenever the hormone was discontinued. Because of the suffering of hormone medication, the patient refused to take it and visited the hospital of traditional Chinese medicine (TCM). Present symptoms: fever, axillary temperature 38.6 °C, irritability, feverish sensation in the face, malar flush, sweating on the forehead region, dry mouth but no desire to drink, burning sensation in the palms

and soles, subjective cold feeling in the lumbar and abdominal region combined with soreness and weakness of the lumbar region and knee joints, poor appetite and sleep, loose stool, 3 to 5 times a day, clear profuse urine, nocturnal frequent urination, 2 to 3 times at night, pale and flabby tongue with moist coating, deep and slow pulse, especially obvious at the *chi* region. WM diagnosis: fever. TCM diagnosis: floating-*yang* syndrome, in the category of kidney *yang* deficiency and declining. Treating principle: warming and tonifying kidney *yang*, returning the fire to the origin.

Methods

Umbilicus moxibustion therapy

- (1) Material preparation: A paste was made of fresh ginger juice, the warm boiled water and flour, about 5 cm in diameter and 2 to 3 cm in thickness. A small hole was left in the center of the paste and the inner diameter of the hole should be in compliance with the outer diameter of the umbilicus.
- (2) Herbal powder: *Shúdihuang* (熟地黄 *Radix Rehmanniae Praeparata*), *Bǔgǔzhī* (补骨脂 *Faeces Psoraleae*), *Ròuguì* (肉桂 *Cortex Cinnamomi*), *Shānzhuīyú* (山茱萸 *Fructus Corni*), *Fùzǐ* (附子 *Radix Aconiti Lateralis Praeparata*), *Shānyào* (山药 *Rhizoma Dioscoreae*), *Mùdānpí* (牡丹皮 *Cortex Moutan*), *Guìzhī* (桂枝 *Ramulus Cinnamomi*) and *Wúyào* (乌药 *Radix Linderae*), 2 g for each, were ground into powder, screened and stored in a bottle. About 3 g of powder was used in each treatment and mixed with 0.2 g of artificial musk.
- (3) Acupoint selection: *Shénquè* (神阙 CV 8)
- (4) Operation: The patient was in supine with the umbilicus exposed completely. After routine sterilization with 75% alcohol at CV 8, the paste was put on the umbilicus, the

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naval hole was filled slowly with the herbal powder and the herbal powder surface was as the same level as the upper border of the small hole of the paste. A moxa cone (about 3 cm in diameter and 3 cm in height) was placed on the herbal powder and ignited. A new moxa cone was replaced when the previous one was burnt out. The duration of moxibustion was 1.5 h, 5 to 6 cones were used. The moxibustion temperature was determined by the patient's response to avoid burning. At the end of treatment, the paste was removed and the skin around the umbilicus cleaned. A little amount of herbal powder was left in the umbilicus that was fixed with the sterile plaster. The plaster was removed 12 h later.

Acupuncture treatment

The first group of acupoints included Tàixī (太溪 KI 3), Guānyuán (关元 CV 4), Tiānshū (天枢 ST 25), Tàiyuān (太渊 LU 9) and Zúsānlǐ (足三里 ST 36). The second group of acupoints included Shènnshù (肾俞 BL 23) and Fèishù (肺俞 BL 13). The sterile needles for single use, 0.30 mm × 40 mm, were selected. Except at BL 13, the needles were inserted at the acupoints perpendicularly. At BL 13, the needle was inserted obliquely toward the spine, about 75° formed with skin surface. At KI 3 and BL 13, after *deqi*, the reinforcing technique by rotating the needle was exerted, in which, the needle was rotated to the right forcefully and to the left gently. At BL 23, after *deqi*, the reinforcing technique by lifting and thrusting the needle was exerted, in which, the needle was thrust heavily and lifted gently. The even-needling technique was exerted at the rest acupoints. The depth of insertion was determined by whether *deqi* is presented or not (meaning the needling sensations as soreness, numbness, distension or heaviness). After *deqi*, the trembling technique was used to intensify the needling sensation for 10 s, and then, the needles were withdrawn.

The treatment was given twice a week and 4-week treatment was one course. During treatment, the patient felt subjectively warm in the abdomen and had slight sweating in the lumbar region. After the first two treatments, the body temperature was reduced obviously, between 37.6 and 38.2 °C. The temperature was controlled effectively by taking the hormone of the dose 50% reduced as compared to the dose before treatment. The burning sensation in the palms and soles and the cold feeling in the lumbar and abdominal regions were alleviated. The stool was basically normal, 2 to 3 times a day and the frequency of nocturnal urination was reduced, 1 to 2 times at night. The patient had a normal vitality, appetite and sleep. The tongue was slightly red and the pulse was deep and forceful. After two courses of treatment, the body temperature was recovered to be normal and the hormone medication was terminated. The patient narrated that the burning feeling in the palms and soles disappeared basically, but sweating was still present in the lumbar and abdominal regions when having a fever. The defecation was regular, nocturnal urination disappeared and the appetite and sleep were normal. At clinical visiting, the condition of tongue was found to be slightly red with thin yellow coating and the pulse was deep and rapid. Hence, the patient was advised to keep on the treatment for one more course (4 weeks) to consolidate the effect. The symptoms did not recur in half-a-year follow-up.

Note

"*Daiyang*" was recorded at the earliest in *Shānghán Lùn* (《伤寒论》 *Treatise on Cold Damage*), meaning that *yang qi* is floating up to the head. *Yang qi* floating to the head and face results in malar flush like making-up, *yang qi* stagnated on the exterior results in excessive *yang* of deficiency type in the head

and face. Currently, "*daiyang*" syndrome (floating-*yang* syndrome) has not been defined yet, particularly manifested as malar flush like making-up in which the red complexion is not fixed at the same place, and the heat syndrome in the upper and cold syndrome in the lower. "*Daiyang*" syndrome (floating-*yang* syndrome) is explained as critical syndrome in ancient medical works and is seldom seen. But, in clinic, the symptoms of floating-*yang* syndrome can present in many diseases, such as the critical signs at the later stage of hypertension, acute heart failure and the disorders after excessive use of hormone [1].

In this case, the patient had persistent high fever that was temporarily relieved by using hormone at large dose. The heat signs presented, such as red face, malar flush, burning sensation in the palms and soles and sweating on the forehead, combined with cold and pain in the lumbar and abdominal region, soreness and weakness in the lumbar region and knee joint, loose stool, frequent urine, deep and slow pulse, all of which indicate *yang* deficiency and cold signs. This case is the typical floating-*yang* syndrome with the heat in the upper and the cold in the lower. By analyzing the pulse condition and the information collected in four diagnostic methods, the case was differentiated as kidney *yang* deficiency. Hence, the treating principle was warming the kidney and strengthening *yang*. *Lingshū* (《灵枢》 *The Spiritual Pivot*) says, "When the five *zang* organs are diseased, the symptoms will be manifested themselves in the conditions of the twelve *yuan*-primary points with which they are connected. The conditions of the twelve *yuan*-primary points indicate the disorders of five *zang* organs." [2] Hence, the disorders of five *zang* organs are treated by needling the twelve *yuan*-primary points, e.g. KI 3, the *yuan*-primary point of kidney meridian and LU 9, the *yuan*-primary point of lung meridian. It is mentioned in *Biāoyōufù* (《标幽赋》 *Ode to Elucidate Mysteries*) that the back-*shu* points are selected for the disorders of *zang-fu* organs. In this case, BL 23, the back-*shu* point of kidney and BL 13, the back-*shu* point of lung were selected to tonify kidney *yang* and benefit *qi* activity and strengthen lung *qi* for shortness of breath respectively. Additionally, in terms of the theory of five elements, the mother element (lung) is strengthened in the deficiency case (kidney) and because of the mutual promotion relationship between the mental and the water, the lung organ is strengthened to benefit the kidney. Hence, these two back-*shu* points are used coordinately in the treatment. *Zhēnjiū Dàchéng* (《针灸大成》 *The Great Compendium of Acupuncture and Moxibustion*) records that ST 25 is especially selected for the deficiency condition [3]. CV 4 and ST 36 act on cultivating the root and consolidating the primary, benefiting the nutrient and harmonizing the defensive and regulating *qi* and blood. Consequently, the kidney is capable in *qi* activity and the abundant kidney *qi* provides the source of *yang qi*. Finally, the floating *yang* is fixed and the heat signs in the upper are relieved [4].

Umbilicus moxibustion therapy is in the category of external therapy of traditional Chinese medicine (TCM). The umbilicus is the place in which CV 8 is located. It is the root of twelve meridians, acting on tonifying the spleen and kidney. The skin at CV 8 is thin and delicate and directly connects with intestines. The umbilicus moxibustion therapy achieves a comprehensive effect of moxibustion, acupoint, meridian and herbal medication. The warming effect of moxibustion and the rectification effect of herbal medication work at the affected area along meridian and through the umbilicus. Such therapy strengthens *yang* rather than increases heat, and clears away heat rather than damages *yang*. Ultimately, the therapy acts on clearing heat to remove damp, removing stasis to stop pain and tonifying the spleen and kidney accessed by warming effect [5]. In the herbal powder of moxibustion, *Fructus Corni* and *Rhizoma Dioscoreae* work on tonifying the liver and kidney, *Radix Rehmanniae Praeparata* on benefiting kidney essence and filling up marrow, *Ramulus Cinnamomi* on strengthening *yang*

and benefiting *qi* activity, *Radix Aconiti Lateralis Praeparata* and *Cortex Cinnamomi* and *Radix Linderae* on warming the kidney to expel cold, rescuing *yang* from collapse, conducting the floating *yang* to descend and returning the fire to the origin. *Cortex Moutan*, cold in nature, prevents from the excessive ascending of *yang*, keeps *yin-yang* balance and eliminates cold symptoms in the lower part of the body.

References

- [1] Wang DH, Ren JT, Xie YZ. Professor wang yongyan's experiences of diagnosis and treatment of deteriorated case of stroke-floating yang syndrome. *Mod Chin Clin Med* 2018;24(01):23–6.
- [2] Gao Y. Research progress of the distribution rule of sensitized acupoints. *J Sichuan Tradit Chin Med* 2018;36(10):212–14.
- [3] Wu XD. Exploration on acupoint indications in versus on ancient acupuncture treatment. China Academy of Chinese Medical Sciences; 2005.
- [4] Chen YC, Lu CQ, Wang SH. Professor Wang Shaohua's experiences in treatment of two cases of chronic hepatic disease with traditional Chinese medicine therapy. *J Sichuan Tradit Chin Med* 2015;33(04):93–4.
- [5] Sun CQ, Dong TT, Pang YZ, Pan YH, Li JL, Yang JG. Case report of ankylosing spondylitis complicated with ulcerative colitis. *Zhongguo Zhenjiu* 2017;37(02):180.