

Observation on Efficacy of Gentongping in Treatment of Lumbar Vertebra Hyperosteogeny

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Abstract: **Objective** is to discuss the efficacy of Gentongping in the treatment of lumbar vertebra hyperosteogeny. **Method:** Yaotengning is used in the control group, the observation plan is formulated as per *Guidelines for Clinical Research on New Drugs in Chinese Medicine* and *Criteria of Diagnosis and Therapeutic Effect of Diseases and Syndromes in Traditional Chinese Medicine*, and the results of reexamination after 4 treatment courses were used for the efficacy evaluation. **Results:** In comparison of the Gentongping group and the control group, there was significant difference in the results. **Conclusion:** Gentongping can be used for the clinical treatment of lumbar vertebra hyperosteogeny.

Keywords: Gentongping; Lumbar Vertebra Hyperosteogeny; Traditional Chinese Medicine Treatment

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Hyperosteogeny is a chronic disease in the middle-aged and elderly people, with an incidence rate of 5.1%. This disease mostly occurs in middle-aged and elderly and postmenopausal women. About 25% of people around 50 years old, 59.8% of people around 60 years old and 100% of people around 70 years old suffer from this disease ^[1, 2]. From June 2005 to February 2007, Gentongping was used in the treatment of 78 patients with lumbar vertebra hyperosteogeny in the First Affiliated Hospital of Henan University, and satisfactory results were achieved. The reports are as follows

1. Information and Methods

1.1 Material

Gentongping (Preparation Room of the First Affiliated Hospital of Henan University, Batch No.: 20061016); Yaotengning (Chengde Jingfukang Pharmaceutical Group Co., Ltd., Batch No.: 060116)

1.2 Subjects

The typical cases sorted out by the Orthopedics Department of our hospital were selected, and all of them were patients with lumbar vertebra hyperosteogeny. There were 78 patients in the

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Treatment Group and 76 patients in the control group, with the ages between 25~72 years old and an average of 37.6 years old. The courses of disease were 3 months~26 a, with an average of 3.8 a. The clinical manifestations included aching pain in lumbar and leg which was light or severe at times and could be aggravated during activity, pain and numbness of lower limbs, sensory function retardation, myasthenia, intermittent claudication, etc.^[3] In severe cases, the patients suffered from difficulty in waist motion, and some had reflex pain. Generally it could be shown in the examination that the physiological lumbar lordosis was decreased, the spinal motion was limited, extensive pressing pain existed on both lumbosacral sides, and the straight leg raising test results of some patients were positive. The X-ray examination showed vertebral endplate hyperostosis osteosclerosis, marginal osteophytes and even bony bridge formation, intervertebral facet joint space narrowing, articular surface sclerosis, etc.

1.3 Treatment Methods

The patients were randomly divided into two groups as per the treatment order. The group treated with Gentongping was the Gentongping group, and the group with Yaotengning adopted was the control group. Diagnosis and evaluation bases: The observation plan was formulated in reference to *Guidelines for Clinical Research of New Drugs in Chinese Medicine* and *Criteria of Diagnosis and Therapeutic Effect of Diseases and Syndromes in Traditional Chinese Medicine*, and the results of reexamination after 4 treatment courses were used for the efficacy evaluation. Treatment methods: Gentongping group: Gentongping was made of paenoniae alba, liquorice, olibanum, myrrh, etc. which were crushed and made into watered pills, with each pill containing 0.2 g crude drug, and 6 g Gentongping, Twice a day, taken orally; control group: the control group took Yaotengning as per the instructions. Under the principle of adoption of the symptomatic treatment in acute conditions and the radical treatment in chronic cases, the patients in the two groups were administered with analgesic drugs as per their conditions at the first 3~5 days. The two groups were continuously treated with the drugs for 4 weeks respectively.

1.4 Efficacy Judgment

Criteria of Diagnosis and Therapeutic Effect of Diseases and Syndromes in Traditional Chinese Medicine issued by the National Administration of Traditional Chinese Medicine were referenced. Cured: the clinical symptoms completely disappear, the functions are normal, and movement is flexible; improved: the clinical symptoms are relieved, and the physical signs are improved; ineffective: the clinical symptoms and physical signs are not improved or aggravated.

2. Results

In comparison of the efficacy in the treatment of lumbar vertebra hyperosteogeny of the Gentongping group with that of the control group, the total efficiency rates were significantly different, as shown in Table 1.

Table 1 Clinical Efficacy of 2 Groups

Group	<i>n</i>	Cured	Improved	Ineffective	Total Efficiency Rate (%)
Control Group	76	20	42	14	81.58

3. Discussion

This disease is a change of physiological protection, where hyperosteogeny and osteophyte are developed in the part with excessive stress, to increase the stability of the spine. Secondary lumbar vertebra hyperosteogeny is the main clinical etiology, and the causes are mostly injuries secondary to lumbar vertebra, chronic strain caused due to long-term heavy physical labor, long-term excessive exercise, etc.

This disease belongs to the category of "arthralgia syndrome" in the traditional Chinese medicine. As per the basic theory of the traditional Chinese medicine, the diagnosis and treatment based on an overall analysis of the illness and the patient's condition shall be carried out, to determine the treatment principles. In the prescription, white peony root (*paeoniae alba*) has the effects of blood and liver nourishing, meridian regulating and acute symptom and pain relieving, and is used for treatment of contracture and pain of extremities; safflower has the effect of dispelling wind and warming collaterals, which is used as the medicine of heart, liver and blood, and can treat various blood stasis symptoms. Because of its strong vitality, it can promote the promotion of new blood generation, so it is commonly known as "removing blood stasis". Safflower with peach kernel can remove blood stasis and generate new blood, which can complement each other, and all the blood stasis syndromes can use it; olibanum and myrrh (used for deoiling and reduction of the irritation to the stomach) are bitter, spicy and easy to spread, and are good at promoting blood circulation and stopping pain, diminishing swelling and promoting granulation and treating blood stasis and pain in chest and abdomen. All of the above medicines are principle drugs and blood-activating and stasis-dissolving drugs. The combination of these drugs has remarkable effect on promoting blood circulation and qi, dissipating blood stasis and relieving pain and promoting meridians and removing blood stasis. With east Asian tree fern rhizome, the effect of reinforcing liver and kidney and strengthening waist and knee is obvious. *Lycopodium clavatum* has the efficacy of wind expelling, dampness eliminating, muscle relaxing and collateral activating; *achyranthes bidentata* is capable of dissipating blood stasis, reinforcing liver and kidney, strengthening muscles and bones, conducting medicines to the lower body part and treating sore waist and knee, muscle and bone weakness and rheumatic arthralgia due to the deficiency of liver and kidney; teasel is a medicine for the liver, kidney and meridian, which has the efficacy of tonifying and activating without stagnation, tonifying the liver and kidney, activating blood vessels and strengthening muscles and bones, especially commonly used in traumatology. Due to the disturbance in qi and blood and deficiency of yang-qi after injury and strain, wind-cold damp pathogens are easy to advance when people are weak, and are combined with blood stasis and phlegm, it is difficult to heal. The combination and application of several medicines above with principle drugs can dredge meridians and promote blood circulation, and can tonify yin of the kidney and clear the yingfen syndrome with the dried rhizome of *rehmannia*. *Pueraria Lobata* has the effects of diaphoresis and expelling of pathogenic factors from muscles for clearing heat, and is beneficial in the treatment of severe aches and pains of the neck and back. The combination of liquorice and various medicines has the functions of promoting blood circulation, removing blood stasis, promoting qi, relieving pain and tonifying liver and kidney.

It can be seen from clinical observation that the total efficiency rate of the treatment of lumbar vertebra hyperosteogeny with Gentongping is 93.58%, which is significantly different from that of the control group. The compatability of Gentongping is reasonable, and the efficacy is definite, and is often used for clinical treatment of various pain caused by lumbar vertebra hyperosteogeny.

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