

In this study, the use of immunohistochemistry, Western blot detection methods, cerebral ischemia and reperfusion was observed at different time points after MCAO / R rats with ischemic brain tissue MMP-9 protein expression was found: reperfusion after ischemia brain tissue levels of MMP-9 was as reperfusion time dynamic changes, and then began to increase perfusion 4h, 12h increased significantly, 24h ~ 48h reached the peak, followed by somewhat lower, which is observed in the experimental brain water content Changes consistent, thus proving the MMP-9 involved in the BBB after cerebral ischemia-reperfusion damage and secondary brain edema formation. Early intervention in scalp treatment, scalp rats at various time points after reperfusion ischemic brain tissue MMP-9-positive cell count and protein content were significantly reduced, with the same point in time model group , with a significant difference (P <0.05) and increase of MMP-9 by excessive degradation of ECM components of the basement membrane ECM degradation leaving the normal balance is destroyed, resulting cascade after cerebral ischemia and reperfusion injury."Baihui" transparent "Qubin" scalp therapy may inhibit endogenous synthesis and secretion of MMP-9, MMP-9 induced to reduce matrix degradation, BBB open vasogenic brain edema, leukocyte infiltration and secondary brain damage, and thus play its antagonistic cerebral edema and cerebral ischemia-reperfusion injury.This is the prevention and treatment of ischemic stroke provides a new way of thinking.

References

- 1 Rosenberg GA.Matrix metalloproteinases in neuroinflammation [J].Glia. 2002.8 (39):279-283
- 2 Xue M ,Hollenberg MD ,Yong VW. Combination of t hrombin and matrix metalloproteinase-9 exacerbates neurotoxicity in cell culture and intracerebral hemorrhage in mice.J Neurosci ,2006 ,26(40) :10281-10291.
- 3 Mun-Bryce S,Rosenberg GA.Matrix metalloproteinases in cerebrovascular disease.J Cereb Blood Flow Metab.1998,18:1163-1172.
- 4 Lee SR, Lo EH. Induction of caspase-mediated cell death by matrix metalloproteinases in cerebral endothelial cells after hypoxia-reoxygenation. J Cereb Blood Flow Metab, 2004, 24 (7): 720-7.
- 5 Romanic AM, White RF,Aleth AJ, *et al.* Matrix metalloproteinase expression increases after cerebral focal ischemia in rats:inhibition of matrix metalloproteinase-9 reduces infarct size[J].Stroke,1998 ,29(5):1020-1030.
- 6 Chen Hongbing,Guo Yunliang, et al.Cerebral ischemia reperfusion matrix metalloproteinase-2 and 9 expression[J]. Anatomy, 2005, 28 (3) : 304-307.
- 7 Kniesel U, Wolburg H. Tight junctions of the blood-brain barrier[J]. Cell Mol Neurobiol, 2000, 20 (1): 57-76.
- 8 Asahi M, Wang X, Mori T, et al. Effects of matrix metalloproteinase-9 gene knock-out on the proteolysis of blood-brain barrier and white matter components after cerebral ischemia. J Neurosci, 2001, 21 (19): 7724-7732.

Clinical observation on nausea and vomiting caused by the chemotherapy drug cisplatin treated by“heweijiangni” Acupuncture therapy

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Abstracts:Chemotherapy is one of the important methods of malignant tumor therapy,and nausea and vomiting are the most common adverse reaction caused by chemotherapy.Patients with severe nausea and vomiting often fear and they often can't cooperate with treatment,therefore,the effectiveness of treatment often is reduced.Through of traditional Chinese medicine acupuncture

and moxibustion can effectively prevent and relieve nausea and vomiting caused by chemotherapy, to ensure normal chemotherapy.

Key words: acupuncture; chemotherapy; nausea and vomiting ; adverse reactions

Introduction

Chemotherapy is the preferred method of treatment of malignant tumors, with the continuous improvement of chemotherapy in cancer treatment status and new drugs, adverse reactions of chemotherapy are becoming also more and more obvious. Among them with nausea, vomiting caused by chemotherapy regimens including cisplatin is most common. Even if the preventive use of 5-hydroxytryptamine receptor antagonist tropans SiQiong, nausea and vomiting is still as high as 72.48% and the incidence of 39.44%^[1], and influences the patient's quality of life and limits the dosage and course of treatment, even endanger patient's life. Nausea and vomiting attach to " vomit " category in Chinese medicine^[2], and vomiting is a disease, was first seen in "Huangdi's inner classic", which refers to the stomach thing out of his mouth. The disease is located in the stomach, pathogenesis stomach disharmony down, inverse gas on high. Chinese medicine believes that its evils, diet, emotional, physically weak after the illness related. Cancer patients with chemotherapy for the evils merger after the illness, coupled with nausea and vomiting, poor emotional high, more emphasis on the incidence of nausea and vomiting, to this end, the author uses acupuncture prevention and treatment of chemotherapy-induced nausea and vomiting.

Materials and methods

Research data 1.1 General Information In this study, the patients were from October 2011 to November 2012 in Heilongjiang University of Chinese Medicine, First Affiliated Hospital of Medical Oncology for the first time during chemotherapy nausea and vomiting in patients with non-small cell lung cancer. Diagnosis and which meet the criteria for inclusion in a total of 60 cases, including 30 cases of acupuncture observed, others in general, are as follows:

Group	Number	Gender		Age			Chemotherapy	
		Male	Female	Maximum	Minimum	Average	TP	GP
Acupuncture group	30	19	11	67	24	59.23±4.33	21	9
Drug group	30	17	13	69	23	58.81±5.45	20	10

Note : TP: docetaxel + cisplatin ; GP: gemcitabine + cisplatin .

Patients were age, gender, chemotherapy and other baseline data showed no significant difference (P > 0.05).

1.2 Inclusion criteria ① Pathological type explicitly non-small cell lung cancer patients, aged 20 to 70 years of age, Karnofsky score > 70 points. ② Normal bone marrow function, WBC > 4.0 * 10⁹ / L, hemoglobin > 110 g / L, platelets > 100.0 * 10⁹ / L; liver function, serum bilirubin < 1.5 mg / dL; normal renal function, creatinine < 1.5 mg / dL; cardiac function was normal, no active angina, no symptoms of congestive heart failure. ③ No increased intracranial pressure, intestinal blockage, or other causes of intractable vomiting. ④ Chemotherapy containing cisplatin, and for the first time in chemotherapy patients. ⑤ Day before chemotherapy, no nausea and vomiting, in addition no use of antiemetic drugs. ⑥ Subjects volunteered to participate, read and signed informed consent.

1.3 Exclusion criteria ① Not meet the inclusion criteria; ② Suffering from severe depression, anxiety, and drug or alcohol abusers; ③ Studies using other antiemetic drugs or sedatives; ④ Suspended due to serious adverse reactions trials.

2 Research methods 2.1 Case Collection This study were collected 60 patients who met the inclusion criteria according to their order admitted to hospital for treatment in order to be

randomized into two groups , Respectively named by acupuncture observation group and control group, every group has 30 cases .

2.2 Treatment Process

2.2. Acupuncture group acupoints:

Take double acupuncture points Weishu, Neiguan, Zusanli, Gongsun, Pishu, Yanglingquan, Zhongwan. Acupuncture needles are supplied by Hua Tuo Brand acupuncture needles produced by

Suzhou Medical Supplies Factory, size is 40mm × 0.35mm. Operation Method: Patients are suggested lateral position, keep relaxed, routine disinfection, Weishu, Pishu, Gongsun, Neiguan, Zhongwan piercing the 0.8-inch, Zusanli, Yanglingquan into the 1.5-inch, patient/ s sense of acid and hemp diffuses ,and to the level they can tolerate, Give moderate intensity needling dose, acupuncture was brought about the desired sensation (pin sinking tightly) and give normal reinforcing and reducing techniques for needling .The points was needles about 50min and hand-manipulating of needles every 10min ,the acupuncture is given once daily treatment, totally four weeks.

2.2.2 Drug control group

Tropisetron hydrochloride are given 100ml by intravenous infusion twice a day and uses throughout the chemotherapy cycle.

3 Efficacy evaluation
 3.1 Outcome measures
 The course of treatment for acupuncture observation group and control group, the clinical efficacy of drugs for evaluation depends on "American Eastern Cooperative Oncology Group recommended standard " written in 1982.3.2 Evaluation Standards
 ① Antinauseant effect: completely effective (CR): no nausea ; was significantly more effective (PR): mild nausea, does not affect the eating ; mildly effective (MR): moderate nausea , affecting food intake ; void (F): frequent severe nausea .
 ② Antiemetic effect: complete remission (CR): no vomiting ; partial remission (PR): vomiting 1-2 times / d; mild remission (MR): vomiting 3-5 times / d; void (F): Vomiting 5 times / d. Efficiency = complete response + partial remission.

3.3 Statistical analysis SPSS17.0 statistical package for data is applied to process data , count data use χ^2 test, data of measurement use $\bar{x} \pm s$, use paired-samples T test.

Results

Group	Number	Invalid	Mild relief	Partial remission	Complete remission	Efficiency/%
Acupuncture group	30	1	3	11	15	86.67%
Drug group	30	2	3	12	13	83.33.%

Note: The rank sum test shows, $P > 0.05$

Seen from the table , compare between the two groups of patients , the difference of clinical remission extent was not statistically significant ($P > 0.05$), acupuncture observation group and drugs control group got considerable effects.

Discussion

Due to part of gastrointestinal epithelial cells can be updated and belong to the fast growth organization, what is more, most of the chemotherapy drugs can inhibit the growth of the cells, even has damaging effect, therefore chemotherapy gastrointestinal adverse reactions are common^[3]. Cisplatin has been recognized as highly emetogenic drugs, which is mainly caused by peripheral and central nervous system 5-HT, DA neurotransmitter increased afferent vagus nerve stimulation 5-HT₃ receptors, thereby excited vomiting center cause nausea, vomiting^[4]. American Institute of Health (NIH) [5] announced the effectiveness of acupuncture to treat nausea and vomiting in 1997, followed by domestic and conducted many acupuncture Neiguan treatment of chemotherapy-induced nausea and research. Neiguan belongs to Pericardium meridian of hand reverting yin, and the eight confluent acupoints connecting the eight extra channels, communicate

with the Yinwei Meridians. It is analgesic and can regulate qi and inverse anti-nausea and stomach drop. So heweijiangni acupuncture therapy can be used in a variety of diseases of stagnation of qi activity, such as "ode on a hundred pathoconditions" says: "Jianli Neiguan acupoint can sweep away one/s anguish in the chest. According to the "miraculous pivot", saying: tend to vomit, spit out of bitter, Good heave a long and deep sigh take the place under Sanli Stomach Qi inverse. "Four total points" says: the stomach and abdominal diseases should be treated by Zusanli acupoint, this acupoint could regulate the function of spleen and stomach and reconcile the stomach qi, reinforce healthy qi and eliminate pathogenic factors. Modern medical studies have proven that acupuncture stimulates Zusanli acupoint can make the stomach and intestines work powerfully and regularly, and can also improve activity of a variety of digestive enzyme, increase appetite, help digest and to combat nausea and vomiting; Weishu, Pishu belong to the back-shu points, not only treat the disease of their own viscera, but also the treat the diseases of table corresponding to the viscera, so two points can recuperate the stomach qi, enhance the stomach's function and reduce inverse. Zhongwan, acupoints of Ren channel, Tomb of the spleen, eight influential points, all the above acupoints can reconcile the stomach and enhance the function of spleen, inverse reduction and excrete the body's water, mainly combat nausea and vomiting and regurgitation. Yanglingquan he-sea point of Gallbladder meridian of foot lesser yang, the Lower He Sea acupoint of Gallbladder meridian vessels, this point is often used in spleen and stomach diseases tendon and vessel diseases. This point and Zusanli acupoint have the healthcare functions. Gongsun, acupoint of spleen meridian of foot greater yin, one of the fifteen collateral vessels, and also is the eight confluent acupoints connecting the eight extra channels. This point combat vomiting, stomachache, bellyache. Peng Chuxiang and others research Zusanli, Neiguan, Gongsun with mucosal injury significantly to improve synergies^[6], especially symptomatic treatment of chemotherapy drugs on gastric mucosal injury. Through research shows that although the efficacy of the acupuncture group was observed in the clinical research and efficacy of the drug control group showed no advantage, otherwise acupuncture is green, inexpensive, and no side effects, and as a representative of traditional medicine, it has become increasingly prominent in the medical fields on its advantages. Current acupuncture treatment of nausea and vomiting after chemotherapy has the same curative effect as drugs, but in cancer treatment and prevention its advantage has not been fully found potential and with high research value. In addition, the current domestic and international researches on acupuncture treatment in nausea and vomiting have found more and more.

Conclusions

As for its green, economical character with low prices, acupuncture has been favored by more and more people, therefore it is worthy of promotion.

References

- [1] Zhang Wendong, which featured ask, chen-tung Chen, et al. Hydrochloric acid tropane SiQiong prevention and treatment of gastrointestinal reaction induced by chemotherapy drugs multicenter II period clinical trial [J]. Cancer, 2007, 26 (8) : 870-873.
- [2] Zhou Zhongying TCM internal medicine [M] Beijing: Chinese press of traditional Chinese medicine, 2007.2 2009.8 (reprint) : 205-213
- [3] Zhang jian, Li jun, Chemotherapy Therapy of cancer [M] Beijing : Chemical Industry Press, 2010.9 : 87- 89
- [4] Sun yan, Shi yuankai, Manual of medical oncology fifth category [M] Beijing : People's Medical Publishing House, 2007.9 : 288- 297
- [5] NIH Co nsensus develo pmental panel on acupuncture [J] . JAMA, 1998, 158: 2 303- 2 310.

[6]Peng chuxiang,Wang ling,Zhou guoping,, et al. Zusanli acupoint improved with different acute gastric mucosal injury comparative study [J] . Chinese acupuncture & moxibustion, 2007, 27(1) :44- 47.

Study on the effect of tonifying kidney and promoting blood flow on pulmonary function and morphology in rats with pulmonary fibrosis

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Abstract: 60 Wistar rats were divided into normal group, model group, Chinese medicine group, the hormone group. Which traditional Chinese medicine (Method of tonifying kidney and activating blood circulation) group of oral Chemical fiber capsule; hormone group oral prednisone, course of treatment for 28d, 7d, 14d, 28d respectively in the rats were sacrificed, underwent pulmonary function test, the Chemical fiber capsule after treatment, in rats with pulmonary fibrosis, animal general status and pulmonary function showed marked improvement, Chemical fiber capsule treatment of pulmonary fibrosis with satisfactory results.

Key words: tonifying kidney ;activating blood circulation;pulmonary fibrosis; pulmonary function; morphology

Interstitial fibrosis of the lung is difficult to treat respiratory system. In recent years, there are increasing incidence of pulmonary interstitial fibrosis, at present there is no satisfactory treatment method. This study was designed to investigate the effects of Chemical fiber capsule on the general state of lung function and pulmonary fibrosis in rats, to explore the mechanism of Chemical fiber capsule on rat model of pulmonary fibrosis.

1 Experimental materials

1.1 animal Male Wistar rats, weighing (200 ± 20) g, provided by experimental animal center of Heilongjiang University Of Chinese Medicine, keeping clean grade standard.

1.2 drugs Chemical fiber capsule: 10g/ particle, Production from the First Affiliated Hospital of Heilongjiang University Of Chinese Medicine. Main components made of 16 kinds of Chinese medicine by Radix Codonopsis, Radix Pseudostellariae, astragalus, radix, Ophiopogon, Salvia miltiorrhiza, angelica, Gekko gekko and so on..

Prednisone: 5mg/tablet, Harbin biochemical pharmaceutical company limited, lot number 010608. Bleomycin: a 8mg, Harbin Pharmaceutical Company Limited Pingyang mycin, lot number 970403.

1.3 instrument Precision electronic balance: Shanghai balance instrument factory; electric steam sterilizer: Shanghai medical instrument factory; the constant temperature water bath box: Beijing seven medical equipment factory; 721 spectrophotometer, high speed centrifuge: third analytical instrument factory in Shanghai; optical microscopy: Japan OLYMPUS company; automatic paraffin section machine: British SHANON company; digital cameras: Sony Corp of Japan; image analysis system: the United States of America Pharmacia company.

2 experimental method

In 60 Wistar rats after 3d made of conventional breeding, interstitial pulmonary fibrosis model and randomly divided into 4 groups: normal group, model group, Chinese medicine group, the hormone group, 15 rats in each group, model group, Chinese medicine group, prednisone group of intratracheal injection of bleomycin 2d model group, the daily given physiological salt water by gavage, 1mg/100g traditional Chinese medicine group, give Chemical fiber capsule gavage, 1ml/