in BCT and Madopar group were recovered in a certain degree. 3.In response to oxidative stress, the levels of SOD and GSH-Px wereincreasedsignificantly byBCT, whileMDA content of midbrain substantianigrareduced.BCT can improve protein expression and mRNA expression of Nrf2 and OH-1. BCT can dramatically reduce the inflammation factor, such as IL-6, IL-1β TNF-α,IFN-γ and NO level and the positive cells expression of GFAP and iNOS.BCT can significantly reduce the cell apoptosis levels of substantianigra neurons, decrease protein and mRNA expression of Bax/Bcl-2,increase protein and mRNA expression of Caspase-3 and Cytc.Conclusions:BCT may have a protective effect on the PD cells or mouse neurons from multiple pathways and multiple targets.The neuroprotection of BCT on PDwas related to improving the oxidative stress response by regulating Nrf2/HO-1 pathway, neuroinflammation and cellapoptosis.

References:

[1] Yan B, Zhang L, Liu SM, Et Al.Studies on Fuyuanpingchanning'sCompatibility Proportion and its Effect of Anti-PD[J]. Acta Chinese Medicine and Pharmacology, 2006, 34(3): 16-18.

[2] Xiao Ying. The Studies on the Series of Pharmacy of Fuyuanpingchanning Granules [D]. Harbin: Heilongjiang University of Chinese Medicine, 2007.

[3] Ren YD, Jing YE, Zhang SX, et al. Effects of BaichantingCompound on Neuroinflammatory Responses in Mice Models with Parkinson's Disease [J]. Chinese Journal of Information on TCM, 2015, 22(12): 68-71.

[4] Ren YD, Jing YE, Zhang SX, et al. Effect of Baichanting CompoundonOxidative Stress Responses inMice Model of Parkinson's Disease [J]. ChineseJournal of Experimental Traditional Medical Formulae, 2015, 21(22): 154-157.

[5] Ren YD, Jing YE, Zhang SX, et al.Effect of Baichanting Compoundondopamine contents inParkinson's DiseaseMice Model [J]. Chinese Journal of Integrated Traditional and Western Medicine, 2016, 36(1): 94-98.

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THE EVOLUTION OF THE SHALLOW XI YIN METHOD DISPELLING DAMP AND HOT, FORMATION MARK HEAP

Ma Tianming

(Heilngjiang university second affiliated hospital of traditional Chinese medicine, heilongjiang province, Harbin 150001,mtm1978@163.com)

Abstract: ziyin method dispelling damp and hot, is in a deep analysis of \"YinShang\" and \"hot\" inner dialectical relationship between, on the basis of the method to nourish Yin and remove hot and humid, both for \"YinShang\" and \"hot\" mutual relationship between disease and nourish Yin and remove synchronization of damp and hot and different amount of treatment, has been widely used in the clinical diagnosis and treatment, therefore, this article from the perspective of theory, method, square, medicine ziyin remove the evolution of the hot and humid method, given the clear in this paper, the formation, in order to plays an important value in clinical guidelines.

Keywords: ziyin remove hot and humid, the opposite each other, evolution and ormation

Ziyin method dispelling damp and hot, is a kind of treatment becomes one of the two kinds of treatment, in the deep analysis of "YinShang" and "hot" inner dialectical relationship between, on the basis of the method to nourish Yin and remove hot and humid, both for "YinShang" and "hot" mutual relationship between disease and nourish Yin and remove synchronization of damp and hot and different amount of treatment. This kind of treatment, in the ancient classic medical books also has related, the interview from the perspective of principle, method, square, medicine to nourish Yin the evolution of the remove damp heat method, formation given briefly.

The therapy is follow the huangdi neijing, proposed \"the loss of benefits\", \"virtual filling of the theory and development of\" evolved.\"Ask, to really wants big theory\" in also said: \"too the nether world day, wet Yin, the gloomy and cloth, the rain become withered...Yin qi, hunger is not food, cough salivary has blood, disease in kidney.\"[1] reveals the spleen and kidney and wet sheng and pathogenesis outcome of the mutual relationship between Yin deficiency, but also to a great extent, indicates the \"Yin\", \"\" dispelling damp and hot, tianjin with the rationality of the shi.

Zhang zhongjing from the perspective of the law from the perspective of the law, the law of the opposite, which plays a key role in the formation of nourishing and dampness and heat. Opposite each other method is to choose sexual flavour efficacy, function characteristics instead of medicine cooperate to use, make mutual restriction, an excitation, in order to achieve synergies, complement each other, bring out the best in each other the treatment effect of the treatment of [2], the action of pathogenesis or pathological treatment instead of unity in the treatment of a patient.

On the basis of dehumidishing and nourishing Yin, ye tianshi has the following understanding of the diagnosis and treatment of wet and humid heat. Disease is rooted in YinShang, damp and hot symptoms and card, the core of treatment is to nourish Yin, supplemented by dispelling damp and hot drugs at the same time, on the basis of YinShang merger of damp heat treatment, the core of our treatment is to nourish Yin, supplemented by dispelling damp and hot drugs at the same time, which is in accordance with the "Canon" : "cure will beg in this" the fundamental principle of clinical treatment.

For pathological state of coexistence of YinShang, hot and humid JuTong wu also inherited Ye Tianshi ideas about hot and humid to YinShang, caused by the hot and humid to YinShang YinShang of pathology, wu JuTong discusses the hot and humid in the stomach YinShang, spleen YinShang symptoms, which can be seen, oh for YinShang, on the basis of the cause of damp and hot is focusing on the hot and humid, and consumed and human body, the hot and humid to YinShang and make YinShang pathology of damp and hot.

To sum up, the formation process of nourishing Yin and dehumidizing method: its theory originates from huangdi neijing. Zhang zhongjing put forward the basic principles from the perspective of the rule of law, which has an important guiding effect on its formation. After generation doctor enrichment, with the rise of the Ming and qing warm disease school, ziyin connotation and application of the remove damp heat method reached a peak, represented by JuTong Ye Tianshi and wu, xue shengbai characters. Therefore, ye, wu and xue, etc. are the application and guidance of the development of the nourishing and humid heat law of later generations.

References:

[1] Chinese medical research institute of Chinese medicine. [M].beijing: ancient Chinese publishing house, 1984:60, 64 ~66

[2]liu lei, jingrong. Contrast to the treatment of spleen and gastric disease. [J]. New Chinese medicine, 201345 (3) :178

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THE ROLE OF PRIONS AND CHAPERONES IN THE DEVELOPMENT OF NEURODEGENERATIVE PATHOLOGY

Maksimenko V.A., Matytsin A.P.

Amur State Medical Academy, Blagoveshchensk, Russia

Abstracts: Pathophysiological analysis on prion pathology and role of chaperones in its development was carried out. It is supposed that the important part in the mechanism of prion diseases belongs to the system of chaperones.

Key words: prions, chaperones, pre-disease, prion diseases, neurodegenerative pathology.

Neurodegenerative diseases of a man and animals etiologically connected with a special protein – prion. These diseases are characterized by a severe progressive course and inevitable fatal outcome. The main aim of the given work was systematization of data concerning the role of prions and chaperones in the development of prion diseases. Prion diseases are unique that they have a double etiology – genetic and infectious. The fact of experimental transmission of prion diseases proved once and for all their infectious nature. A new class of infectious agents – prions (PrPSc) which considerably differ from microorganisms known before was opened. PrPSc is anomalous isoform coded by a master's cell of normal prion protein (PrPC)) [10, 11, 12]. PrPC is glycoproteid localized on cellular surface and having glycosylphosphatidylinositol "anchor". The protein is found out in the structure of most tissues but its expression in the cells of nervous system is manifested most of all. There is supposition that PrPC participates in antioxidant defense and prevention from cell death. Lowering of PrPC amount and progressive increase of its anomalous form accompanied by oxidative destroy of vitally important organs' tissues especially of central nervous system occurs during the development of prion diseases [1, 2]. The symptoms of inflammation are not typical for pathology connected with prions, it is evidence that immune system probably does not recognize prion protein. It may be caused by that cell death is connected with their apoptosis. The confirmation is that apoptosis of neurons may be induced in vitro by their exposition with PrPSc or its neurotoxic fragment [6, 13]. Besides infectious forms of prion diseases, hereditary forms are also chosen, mutation of PRNP gene coding the primary structure of normal cellular form of prion protein is the basis of it. Nowadays about 20 mutations are known in PRNP gene that allows to suppose the appearance of new unknown before forms of prion diseases in future [1, 12, 13]. It is important to note the fact that proteins-chaperones can play a key role in forming and reproduction of prions. Chaperones are proteins which ensure the right coagulation (folding) of protein in the cell, forming of its native structure and also transport of synthesized protein to the place of its functioning [3, 4, 5, 9]. Chaperones interact with the proteins of blood in the first stages of its synthesis already preventing premature folding of polypeptide chains. Then chaperone complexes secure the right folding or refolding if the course of this process was disturbed. Chaperones also transport proteins into different compartments of the cell to the place of their functioning and take part in the transport of denatured proteins into proteosomic and lysosomic complexes [4, 8]. Inability of chaperones to perform their duties leads to the forming of albuminous aggregates and corpuscles of inclusion. Thus, the most general functions of chaperones are: participation in the folding of proteins; maintenance of native albuminous structure; refolding in case of "wrong" folding; translocation of proteins; prevention of proteins' aggregation. Besides, intracellular chaperones take part in regulation of process of apoptosis in cells and extracellular – in regulation of functions of the organism's immune system. Genetically caused and acquired disturbances of the structure and functions of proteins-chaperones lead to the development of a number of neurodegenerative diseases, cataracts, retinopathies. Apparently, the processes of aging can be connected with the disturbance of chaperones' functions to some extent [5, 7, 14]. The given data testify that chaperones are antagonists to prions and probably can play an important part of sanogenetic mechanism in the development of prion pathology.

Conclusion: The disturbance in the system of chaperones leads to the state of pre-disease and considerably influences on the development and dynamics of development of Neurodegenerative pathology

References:

1. Baker H.F., Ridley R.M. (eds.) Prion diseases. – Humana, New Jersey.– 1996.– 317 p.

2. Brown D.R., Qin KeFeng, Herms J.W. e.a. The cellular prion protein binds copper in vitro. Nature. – 1997. – Vol. 390, № 6661. – P. 684-687.

3. Ehrnsperger, M., Buchner, J., Gaestel, M. (1998) Molecular Chaperones in the Life Cycle of Proteins. Structure, Function