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慢性咽炎阴、阳虚证与植物神经系统功能关系的初步研究

湖南中医学院附属第二医院耳鼻喉科

徐绍勤　谭敬书

内容提要　本文对50例慢性咽炎辨证属阴虚、阳虚患者及30例健康人作了植物神经功能测定。结果表明：本病阴虚组主要处于交感神经功能亢进，阳虚组处于副交感神经功能亢进状态，两组与健康人比较，差异均有显著性意义($P<0.005$)。认为植物神经功能失调，是咽局部病变与全身阴阳失衡相互影响的中介之一。

慢性咽炎为常见病，临床辨证多阴虚、阳虚，中医从整体出发，认为本病系机体各脏腑阴阳平衡失调在咽部的表现。为了从现代医学角度探讨这种咽局部病变与脏腑阴阳盛衰病理变化上的联系和影响，对本病辨证为阴虚、阳虚各25例患者及30例健康人作了多指标植物神经功能检查，现将初步观察结果报告如下。

对象与方法

一、观察对象

1. 健康人对照组30例，其中男18例，女12例，年龄18～52岁。慢性咽炎患者分阴虚组、阳虚组各25例，其中男26例，女24例，年龄21～63岁。

2. 慢性咽炎诊断标准，参考有关文献[1]定为：（1）病程：就诊时发病在三个月以上。（2）症状：以咽部不适感为主，其表现可为咽部干燥感、疼痛感、异物感、灼热感、痒感、发胀感等，具两个症状以上。常伴刺激性咳嗽或“吭喀”动作，易干呕恶心。（3）检查：咽部敏感，咽粘膜充血、肿胀、小血管扩张；咽峡慢性充血，咽后壁附有分泌物；或咽后壁淋巴滤泡增生，咽侧索充血肥厚；或咽粘膜干燥、萎缩、变薄、有痂皮附着。（4）除外咽部其他病变。

阴、阳虚辨证标准用全国中西医结合虚证与老年病防治学术会议制订的中医虚证辨证参考标准[2]，阴虚次证加咽部症状午后加剧一项，阳虚次证加咽部症状午前为重一项。

二、观察方法

1. 植物神经功能检查：包括植物神经平衡指数(y值)、冷加压试验、肢端复温试验、皮肤温差[3～5]。上述检查在室温18～22°C环境中进行。同时测定唾液中Na^+、K^+浓度及Na/K比值。

2. 植物神经功能评定标准：基本正常：上述各项植物神经功能检查结果正常或仅一项阳性。交感神经功能亢进(交感亢进)：植物神经平衡指数、冷加压试验、肢端复温试验中，两项以上呈交感亢进者。副交感神经功能亢进(副交亢进)：上述四项检查中两项以上呈副交亢进者。

结　果

一、慢性咽炎阴虚、阳虚组及对照组植物神经功能检查结果：经植物神经功能综合评定，对照组30例中，正常26例，交感亢进1例，副交亢进3例。阴虚组25例中，正常4例，交感亢进18例，副交亢进3例。阳虚组25例中，正常4例，交感亢进1例，副交亢进20例。与对照组比较(卡方检验)，阴虚组呈交感亢进($X^2=28.4354$，$P<0.005$)，阳虚组呈副交亢进($X^2=27.4626$，$P<0.005$)。

二、各组患者唾液中Na^+、K^+含量及Na/K比值：见附表。与对照组比较：阴虚组唾液Na^+减少($P<0.002$)，Na/K比值降低($P<$

附表 各组唾液中Na^+、K^+含量及Na/K比值比较 ($\bar{X}\pm SD$)

	例数	Na^+(mEq/L)	K^+(mEq/L)	Na/K
对照组	30	7.67±3.80	20.48±4.07	0.38±0.20
阴虚组	25	4.68±2.14*	20.95±5.14	0.24±0.12**
阳虚组	25	11.02±5.81△	16.87±4.54△△	0.70±0.38△△△

注：与对照组比较：*$t=3.4939, P<0.002$；
**$t=3.1758, P<0.005$；△$t=2.5705, P<0.02$；
△△$t=3.1086, P<0.005$；△△△$t=3.9314, P<0.001$

0.005)；阳虚组唾液中Na^+增多($P<0.02$)，K^+减少($P<0.005$)，Na/K比值升高($P<0.001$)。

讨　论

一、慢性咽炎属中医喉痹范畴。据对564例喉痹分型统计[6]，说明本病以阴虚、阳虚为主。本组结果显示阴虚患者主要处于交感神经功能亢进，阳虚患者主要呈副交感神经功能亢进。唾液Na^+、K^+及Na/K比值测定，阴虚组Na^+降低、Na/K比值降低，说明其交感神经功能亢进；阳虚组Na^+升高、K^+降低、Na/K比值升高，亦表明其副交感神经功能亢进。

二、慢性咽炎阴、阳虚证患者植物神经功能紊乱，可以是咽局部病变的原始发病学环节。内脏器官阴阳平衡失调时，可通过神经反射影响皮层及皮层下中枢，致其功能失调，植物神经功能紊乱，发放冲动经咽丛影响咽部，产生咽部一系列病理改变及症状。位于桥脑、延脑的分泌中枢机能失调时，可经交感及副交感神经分泌纤维影响唾液腺及咽部粘液腺，使腺体分泌的量与质发生变化。当交感神经兴奋占优势时，分泌的唾液及粘液量少而稠，出现咽部干燥感及无痰性干咳(吭咯动作)；副交感神经兴奋占优势时腺体分泌量增加，出现咽部痰粘着感。舌咽神经副交感舒血管纤维分布于咽部血管，副交感神经功能亢进，咽部血管扩张，局部代谢增加，产热增多，造成阳虚患者的咽部干燥。但就整体而言，副交感神经兴奋性增高，毕竟以整体代谢降低、产热减少为主，故这种阳虚咽干的特征是饮而不多或喜热饮，或仅略略啜水以润咽部。副交感神经功能亢进致咽部血管扩张，或交感功能亢进致咽部末梢血管痉挛，均可发展致咽部血流瘀滞，造成咽局部血液循环及营养代谢障碍。一方面致咽粘膜充血、水肿、肥厚、淋巴组织增生，出现异物感；另一方面致咽部抵抗力降低，机体与原存在于咽部的细菌间失去平衡，细菌得以生长繁殖，其毒素及代谢产物刺激咽部感觉神经末梢，产生咽部疼痛。这种咽局部血液循环、营养代谢障碍长期持续，尚可致咽粘膜上皮、粘液腺体退行性变及纤维化，形成咽粘膜干燥、萎缩，进一步加重局部病变。

三、整体阴阳失调可导致咽炎，咽炎的产生，亦可由浅入深，由局部至整体，引起或加重机体阴阳的偏盛偏衰。这种咽局部与整体间的相互影响，部分是通过植物神经系统实现的。咽部慢性炎症病灶的存在，细菌毒素及代谢产物作用于咽粘膜、毛细血管及邻近组织的末梢感受器，使神经张力改变，反射性地导致植物神经中枢兴奋、抑制失调，皮层及皮层下核的机能紊乱，导致内脏器官失调并出现全身阴阳失衡症状。说明植物神经功能失调，是全身阴阳失调与咽部病变相互影响的中介及病理生理学基础之一。本组结果证实慢性咽炎阴虚和阳虚患者植物神经功能变化有一定规律性，故认为植物神经功能检查作为咽炎乃至咽喉病变辨证论治研究的客观指标，具有一定价值。

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plasma cAMP decreased, but cGMP in plasma and tissue significantly increased. There were significant difference in three types. After treatment, these indices in all three types normalized. The present study suggested that Zuojin pills could inhibit excretion of gastric acid, reduce plasma cAMP and increase plasma cGMP; Huangqi Jianzhong decoction could increase plasma cGMP level, and serum and tissue gastrin level; Shashen Maidong decoction could decrease cGMP levels in plasma and tissue as well as gastrin levels in serum and tissue, the cAMP/cGMP ratio in plasma and tissue was similar to that in control. It is believed that traditional Chinese medicine therapy is an essential principle regulating balance of physiological function in human body.

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Preliminary Study on Relationship between Yin(阴)Deficiency, Yang(阳)Deficiency in Chronic Pharyngitis and Function of Vegetative Nervous System

Xu Shaoqin(徐绍勤), Tan Jinshu(谭敬书)

Department of Otorhinolaryngology, Second Affiliated Hospital of Hunan College of Traditional Chinese Medicine, Changsha

This paper reported the relationship between the Yin deficiency, Yang deficiency and the functional status of vegetative nervous system, based on 50 chronic pharyngitis patients and 30 normal subjects as control. The result showed that, compared with control, the Yin deficiency group belonged predominately to hyperfunction of the sympathetic nervous system, and the Yang deficiency group to hyperfunction of the parasympathetic nervous system ($P<0.005$). The observation indicated that the functional imbalance of the vegetative nervous system perhaps was one of the causes to influence the throat disease with imbalance of holistic Yin and Yang. The imbalance of internal organs of the body might cause the functional disorder of the cortical and subcortical centers through the vegetative nervous system, and also the pharyngeal pathologic changes might be aggravated. The chronic inflammation of pharynx might cause the imbalance of the cortical and subcortical centers through the vegetative nervous system too, and thus induced the symptoms of Yin or Yang deficiency to appear. It revealed that evaluating the functional status of vegetative nervous system might contribute to the treatment according to syndrome differentiation of chronic pharyngitis and other throat diseases.

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Studies of Erythrocyte Sodium Pump Activity in Human and Effect of *Rheum palmatum* on Its Activity

Yuan Zhenduo(袁振铎), Di Hua(狄　华), Xu Wanzhen(徐婉珍), et al

Beijing Friendship Hospital, Beijing Institute of Clinical Medicine, Beijing

The cation-transport activity of the human erythrocyte sodium pump of 70 healthy persons was studied by ^{86}rubidium uptake method to measure the experimental optimum conditions which was 0.449 ± 0.007 mmol/ RBC/h. The inhibitory activity of *Rheum palmatum* on the human erythrocyte sodium pump in vitro was also observed. Our studies suggested that the abnormal sodium pump activity and cellular energy metabolism was possibly mutually influenced pathophysiologically.

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Effect of Moxa-Cone Moxibustion on Temperature and Microcirculation of Febrile Rabbits Caused by Colitoxin

Wang Yuhua(王宇华), et al

Nanjing College of Traditional Chinese Medicine, Nanjing

In order to explore the role of moxibustion as antipyretics, this paper studied the effect of moxibustion on temperature and microcirculation in rabbit fever model caused by colitoxin which simulated fever model caused by exogenous pathogenic factors. The febrile rabbits were divided into two groups: one was moxibustion group(MG) which was moxibusted at Dazhui(GV14) point immediately after the fever was induced, the other was control group (CG) which was not moxibusted, but moxa-cone was placed on the Dazhui. The pyretic effect of these two groups was comparatively observed between MG and CG. Results showed that the fever incubation period in MG was shortened,