

冠心病患者免疫功能与中医辨证关系初探

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我们在研究心气虚的实质时曾发现冠心病患者的淋巴细胞转化明显低于正常人,提示有细胞免疫功能低下的表现⁽¹⁾。本文的目的是进一步探讨冠心病患者的免疫功能状态、淋巴细胞内 cAMP 含量与中医辨证的关系。

对象和方法

一、研究对象:按照世界卫生组织公布的标准选择冠心病患者为研究对象⁽²⁾。又根据中医辨证,将患者分为以下两组。

(一)心气虚心血瘀滞组(以下简称心气虚组):共29例。男23例,女6例。年龄43~74岁,平均年龄59.2岁。其中急性心肌梗塞6例,陈旧性心肌梗塞6例,冠心病心绞痛17例。

(二)心气阴两虚以阴虚为主兼心血瘀滞组(以下简称心气阴虚组):共8例。男7例,女1例。年龄48~64岁,平均年龄54.8岁。皆为冠心病心绞痛患者。

(三)正常人组:共24例,皆为我院健康的职工及北京中医学院学生。男13例,女11例。年龄19~51岁,平均38岁。

二、观察方法:

(一)淋巴细胞内 cAMP 含量的测定:取血后按国内制定统一的方法分离淋巴细胞⁽³⁾,制成 $1 \times 10^6/\text{ml}$ 的淋巴细胞悬液,用中国医学科学院基础医学研究所生理组提供的药箱进行淋巴细胞内 cAMP 含量的测定,计数用 Packard 液闪仪。

(二)淋巴细胞转化试验(以下简称淋转):分离淋巴细胞并制成 $1 \times 10^6/\text{ml}$ 的淋巴细胞悬液,用体外³H-TdR 渗入法进行测定,其结果用每分钟脉冲数(cpm)表示,按加入 PHA 的不同浓度分为0(不加 PHA)、20 $\mu\text{g}/\text{ml}$ 、40 $\mu\text{g}/\text{ml}$ 、80 $\mu\text{g}/\text{ml}$ 四组。

(三)血清免疫球蛋白的测定:用单向琼脂扩散法测定。

(四)E-花环试验:应用国内拟订的统一流程进行⁽⁴⁾。

(五)淋巴细胞酸性 α -萘乙酸酯酶(ANAE)染色,用以区别 ANAE(+)和 ANAE(-)细胞。

观察结果

一、淋巴细胞内 cAMP 含量:结果见表1。

表1 淋巴细胞内 cAMP 含量与辨证的关系

组 别	例 数	cAMP (PM/ml) $\bar{X} \pm \text{SD}$
心 气 虚 组	13	76.95 \pm 28.21**
心气阴两虚组	5	132.26 \pm 89.78*
正 常 人 组	24	67.25 \pm 34.7

*与正常人组相比 $P < 0.01$

**与心气阴两虚组相比 $P < 0.01$

从表1可见,心气阴两虚以阴虚为主的患者,其淋巴细胞内 cAMP 含量明显高于心气虚和正常组($P < 0.01$),表明 cAMP 含量与中医辨证类型之间有一定的关系。

二、淋巴细胞转化试验:结果见表2。

表2 淋转与辨证的关系

组 别	淋转的cpm $\bar{X} \pm \text{SD}$			
	PHA 浓度 ($\mu\text{g}/\text{ml}$)			
	0	20	40	80
气 虚 组	434 \pm 431.29 (26)	31,330 \pm 27,117* (22)	33,952 \pm 27,993* (29)	32,006 \pm 25,997* (26)
气阴虚组	394.75 \pm 159.09 (8)	45,750 \pm 24,868 Δ (7)	39,205 \pm 18,456* (8)	29,567 \pm 21,686* (8)
正 常 组	668.5 \pm 622.9 (24)	73,410 \pm 20,704 (24)	69,616 \pm 16,213 (24)	59,516.37 \pm 19,743 (24)

*与正常组比 $P < 0.001$ 括号内的数字为测定例数。

Δ 与正常组比 $P < 0.01$

从表2可以看出,在未加PHA时,各组淋巴细胞的自然转化皆低于正常组,但尚未达到有统计意义的程度。然而,在加用PHA后,气虚组、气阴两虚组的cpm皆低于正常组,具有极其显著的统计学意义。气虚组与气阴两虚组之间的cpm经统计学处理无明显的差异($P>0.05$)。

三、E-花环试验:结果见表3。

表3 E-花环形成与辨证的关系

组别	例数	E-花环形成 ($\bar{X} \pm SD$)	
		活花%	总花%
心气虚组	29	24.27 \pm 7.02*	47.10 \pm 10.84*
心气阴虚组	7	26.57 \pm 2.64	41.00 \pm 3.79*
正常组	24	36.04 \pm 5.54	60.95 \pm 4.39

*与正常组相比 $P<0.001$

从表3可以看出各组E-花环的形成与正常组相比,除心气阴虚组的活花%外,其余皆明显低于正常组,具有极其显著的统计学意义。心气虚与心气阴两虚组之间比较,则无明显的差异($P>0.05$)。

四、血清免疫球蛋白含量:结果见表4。

表4 血清免疫球蛋白含量与辨证的关系

组别	数例	IgG ($\bar{X} \pm SD$) 国际单位	IgM ($\bar{X} \pm SD$) 国际单位	IgA ($\bar{X} \pm SD$) 国际单位
心气虚组	29	187.34 \pm 48.68	172.34 \pm 80.40	146.96 \pm 58.90*
心气阴虚组	8	195.88 \pm 56.21	176.75 \pm 75.45	139.88 \pm 66.16
正常组	21	191.47 \pm 40.10	136.14 \pm 55.64	185.07 \pm 65.81

*与正常组相比 $P<0.05$

从表4可以看出,除心气虚组IgA的含量低于正常组外($P<0.05$),其余的数据在各组之间相比或与正常组相比,皆无明显的差异($P>0.05$)表明冠心病患者免疫球蛋白含量无明显异常,与中医辨证类型之间也无明显的关系。

五、淋巴细胞酸性 α -萘乙酸酯酶(ANAE)染色的

表5 淋巴细胞ANAE(+)与ANAE(-)百分比与辨证的关系

组别	例数	ANAE(+) $\bar{X} \pm SD$	ANAE(-) $\bar{X} \pm SD$
心气虚组	25	56.24 \pm 14.36*	43.56 \pm 14.36**
心气阴虚组	8	52.10 \pm 8.43**	47.75 \pm 7.87**
正常组	24	79.10 \pm 3.94	20.90 \pm 4.1

*与正常组相比 $P<0.05$

**与正常组相比 $P<0.01$

测定,结果见表5。

从表5可以看出ANAE(+)细胞的百分比皆明显低于正常组,心气虚与心气阴两虚之间相比则无明显差异($P>0.05$),ANAE(-)细胞的百分比则又是显著的高于正常组($P<0.01$),但心气虚与心气阴两虚组之间则无明显差异($P>0.05$)。

讨论与小结

自Goldberg提出了环核苷酸可能是东方阴阳学说的物质基础以来,我国学者进行了一些有关环核苷酸与机体阴阳消长及中医辨证关系的研究,并初步发现环核苷酸的变化和人体阴阳消长有一定的关系。我们曾观察一组心气虚和心气阴两虚患者血浆环核苷酸的变化,结果表明心气阴两虚者血浆cAMP含量明显高于、而cGMP则明显低于心气虚组⁽¹⁾。本文测定的淋巴细胞内cAMP含量与上述血浆内cAMP含量的改变相一致,即心气阴两虚者淋巴细胞内cAMP含量明显高于心气虚者($P<0.05$),与邱安堃等的观察结果有相似之处,邱氏指出阴虚的特点cAMP含量升高,而cAMP/cGMP比值不降低甚至升高;阳虚的特点是cAMP/cGMP比值下降⁽²⁾。我们初步认为,从总体来看,环核苷酸的改变可以反映机体阴阳消长的改变,但由于各辨证组之间以及与正常组之间每一例的具体数据有部分重叠,因而,把cAMP、cGMP含量的变化作为个例的阴阳辨证指标的意义如何,有待研究。

近几年来免疫学工作者应用ANAE染色作为T细胞的鉴定方法。不少学者认为在严格控制孵育时间等条件下,ANAE阳性淋巴细胞基本代表T细胞,可将ANAE活性产物当作T细胞内标记作为鉴定T细胞的标志⁽³⁾。Horwitz和Sher等均证明ANAE阳性淋巴细胞百分率与E-花环形成淋巴细胞百分率之间存在平行关系。认为ANAE染色法可代替E-花环试验以测定T细胞⁽⁴⁾。本实验结果表明中医辨证属于心气虚或心气阴两虚的冠心病患者的淋转、E-花环形成以及ANAE染色阳性淋巴细胞百分率皆低于正常人,提示患者的细胞免疫功能明显低于正常。然而心气虚与心气阴两虚者之间无明显差异。已有不少报道指出中医虚证患者免疫反应较低⁽⁵⁾。我们初步认为细胞免疫功能低下可能是虚证的一个共性表现,目前常用的淋转、E-花环形成以ANAE染色等反应T细胞数目及功能的指标,有助于中医虚证的辨证,但是尚不能指明是心气虚还是心阴虚,是脾气虚还是肾气虚等等,因而这些指标对虚证具有定性的意义,但不能定位。

有许多研究表明环核苷酸对免疫功能具有重要的调节作用,当免疫细胞与相应抗原结合之后,细胞内的cAMP和cGMP水平是呈相反的改变。一般说cGMP含量升高可刺激一系列免疫反应产生,而cAMP含量升高则有抑制作用⁽⁴⁾。本组患者淋巴细胞内cAMP含量高于正常组,而细胞免疫功能则又低于正常组,因而可能与cAMP含量增高对细胞免疫的抑制作用有关。

本文结果表明免疫球蛋白的变化不明显。我们初步认为目前常用的反映体液免疫功能的IgG、IgM、IgA等的正常值范围较大,影响的因素较多,因而尚缺乏特异性及敏感性,与中医辨证之间尚看不出明显的规律。

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输卵管阻塞的中西医结合治疗(摘要)

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输卵管阻塞是妇科的疑难病症之一,过去运用手术治疗,疗效不够理想。我院对治疗前均经子宫输卵管碘油造影证实的20例,使用以活血祛瘀为主的中西医结合治疗,取得初步的效果,简介如下:

治疗方法 甲方:丹参汤(蒲公英30g,紫花地丁15g,丹参、赤芍、乳香、没药、三棱、莪术各10g,桃仁3g)煎服,隔日一剂,月经来时停服,连服二个月为一疗程。乙方:益母胜金汤(当归、白芍、熟地、丹参、益母草、茜草、香附各10g,川芎5g)煎服。每日一剂,月经前、后各连服五剂,可用两疗程。如合并输卵管积液或进行性慢性炎症者选用甲方,如合并卵巢功能不全则选用乙方辨证加减。根据病情可加用少量鱼腥草针、胎盘组织液、甲糜蛋白酶或强的松等。

治疗效果 共治疗20例,成功10例,其中不孕年限5~9年者6例,10年以上者4例;25~30岁5例,31~35岁5例。治疗时间:三个月内者4例,一年内者4例,二年内者2例。随访一年内者3例,2~3年者2例,5~9年者5例。成功病例均足月分娩,妊娠经过良好,无发生宫外孕者。

讨论 1.关于中西医结合治疗输卵管阻塞原理的

探讨:输卵管阻塞系由炎症引起,常伴下腹压痛、宫颈抬举痛、拒按及包块等体征。中医认为“不通则痛”,气血不通必产生疼痛,故输卵管阻塞属少腹血瘀,治以祛瘀、活血、止痛。丹参、赤芍、桃仁、茜草活血祛瘀、乳香、没药活血定痛,香附理气定痛;四物汤与益母草有调经、活血、养血作用。因其往往伴有炎症,故用蒲公英、紫花地丁清热解毒。个别加用鱼腥草协助消炎,用组织液、酶制剂或激素以协助松解粘连及粘连。

2.疗效分析:在成功的病例中,伞端阻塞者6例,通而不畅2例,间质部阻塞2例,伴有输卵管积液2例。在伞端阻塞病例中,一例治疗2个月,一例治疗3个月而愈;2例通而不畅仅治疗1个月即愈。说明伞端阻塞及通而不畅病例效果较好。在10例失败病例中,间质部阻塞者7例,峡部阻塞者1例,属结核病变者2例,说明间质部阻塞及有结核病变者效果较差。

以活血化瘀为主的中西医结合治疗输卵管阻塞,部分病例可以缩短疗程,避免手术,且治疗简便,中药来源广,有利于农村推广使用。在成功病例中随访1~9年无一例宫外孕发生,说明输卵管通畅后,可以恢复其生育能力。

Abstracts of Original Articles

A Preliminary Exploration of Reducing GPT in Chronic Hepatitis by Means of "Bian Zhen Lun Zhi"

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The GPT value in serum, if persistently and repeatedly abnormal, is one of the important biochemical indications in chronic hepatitis. In the treatment of chronic hepatitis by means of TCM-WM, the principle of "Bian Zhen Lun Zhi" (辨证论治, diagnosis and treatment should be based on an overall analysis of symptoms and signs, including the cause, nature and location of the illness and the patient's physical conditions) should take into consideration relevant findings of modern medicine. This paper presents the preliminary results of our practice with some case reports to illustrate our four approaches to the subject.

1. To change the reactivity of the organism: Patients with low value of GPT tend to have skin itching while the liver remains histologically normal or there are only nonspecific inflammatory reactions in it. The inhibition of reactive inflammation by *Paeonia suffruticosa*, *Radix Notoginseng*, *Radix Cynanchi Paniculati*, *Herba Ajugae* and *Radix Sophorae Flavescens*, etc. is helpful in reducing GPT value. For instance, the GPT value of a young female patient had remained 400u or so and HBsAg(+) for 4 years. After administering 24 doses of our prescribed Chinese herbal medicine, her GPT value reduced to normal.

2. To adjust the peripheral pH value of the liver cells: As low pH value at the periphery of the liver cells may reduce the release of GPT, the compound prescription can increase its effectiveness in reducing GPT when *Achyranthes Bidentata*, *Radix Paeoniae Alba*, *Fructus Crataegi* and *Fructus Mume*, etc. are added to it. After administering 14 doses of the Chinese herbal medicine to a young male patient with persistent abnormal GPT value and HBsAg(+) for two years, his GPT value reduced to normal.

3. To enhance the cell-mediated immunity of the organism: *Radix Astragali*, *Fructus Gardeniae*, *Ramulus Loranthi*, *Radix Scutellariae*, *Lonicera japonica*, etc. can enhance the functions of cell-mediated immunity. After administering the Chinese herbal medicine for a month or so to a young male patient with abnormal GPT value, HBsAg(+) and subnormal cell-mediated immunity for 9 years, his GPT reduced to normal and cell-mediated immunity recovered. No relapse was found in the following 5 years.

4. To regulate the metabolism of the patient: Many Chinese herbal medicines are effective in correcting metabolic disorders caused by chronic hepatitis, for instance, *Cornu Bubali*, *Radix Notoginseng*, *Bombyx mori*, etc. can increase the level of albumin, while *Radix Astragali*, *Semen Persicae*, *Achyranthes Bidentata*, *Angelica Sinesis*, *Rhizoma Ligustici Wallichii*, *Radix Salviae Miltiorrhizae* can inhibit the production of globulin. A middle-aged male patient with active chronic hepatitis was found that all indications of his liver functions had been abnormal for more than 3 years, such as GPT over 500u, TTT over 20u, A/G = 2.8/3.6g% etc. After two and a half months' administration of the Chinese herbal medicine, he recovered in an all-round way and no relapse occurred for more than one year.

(Original article on page 201)

A Preliminary Study on the Relationship between Immunity and Differentiation of Symptom-Complexes in CHD

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A preliminary study was performed in patients with coronary heart disease (CHD), who were divided into two groups: deficiency of Qi(vital energy) and Yin(vital essence) of the heart (DQYH, 心气阴虚) and deficiency of Qi(vital energy) of the heart (DQH, 心气虚), so as to investigate the relationship among immunity, cAMP level in lymphocytes, and differentiation of symptom-complexes (DSC). The results showed that cAMP level in lymphocytes was higher in patients with DQYH than those in DQH ($P < 0.001$). This accounts for their relation with DSC. As compared with the normal control group, the percentages of lymphocytic transformation, E-rosette formation, and lymphocytes of acid α -naphthyl acetate esterase staining positive were much lower in DQYH and DQH ($P < 0.05-0.001$). This suggests an impaired cellular immunity in DQYH and DQH, but there is no significant difference between DQYH and DQH. The impaired cellular immunity may be a common feature of insufficiency symptom-complex(虚证). This may relate in part to the increment of cAMP level in lymphocytes. Changes of IgG, IgA, IgM in plasma were not significant.

(Original article on page 206)

Types of Common Gastrointestinal Diseases in TCM in Relation to Salivary Osmotic Pressure

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"Slobber" is saliva and its secretion is determined by "Spleen". Naturally, the imbalance of Yin and Yang in spleen-stomach will influence the quality and quantity of saliva. In order to explore the essence of "Spleen", salivary osmotic pressure (osmotic concentration) was used as an index and 50 cases with common gastrointestinal diseases were observed. They were divided into 4 types according to TCM differentiation of symptom-complexes. In addition, 51 healthy persons were taken as controls. The results showed that changes of salivary osmotic pressure varied with different types of gastrointestinal diseases which had the same outward manifestation. The salivary osmotic pressure increased in three types, namely, hypofunction of the spleen and stomach with manifestations of cold (脾胃虚寒), stagnancy in the liver and deficiency of vital energy of the spleen (肝郁脾虚), and deficiency of vital essence of the stomach (胃阴虚), in which there was no marked statistical difference if compared with the healthy persons, but a significant difference ($P < 0.05$) and a very significant one ($P < 0.01$) were present in the type of disharmony of the liver and the stomach (肝胃不和). The preliminary impression is that kinetic changes of salivary osmotic pressure in common gastrointestinal diseases seem to reflect the function of "spleen" which plays a role in regulating water and saline metabolism.

(Original article on page 212)