

益气养阴活血祛浊方对 30 例慢性肾功能衰竭 气阴两虚证患者细胞免疫状态的影响

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摘要 为了探讨慢性肾功能衰竭(CRF)气阴两虚患者的细胞免疫状态及中药治疗的影响,对 30 例 CRF 气阴两虚证患者进行了 T 淋巴细胞亚群、自然杀伤(NK)细胞、可溶性 IL-2 受体(sIL-2R)检测,结果显示,CRF 气阴两虚证患者 CD₃、CD₄、CD₄/CD₈ 比值、(NK)细胞水平均明显低于正常对照组(P 均 <0.01);CD₈ 水平明显高于正常对照组($P<0.05$);sIL-2R 水平明显高于正常对照组($P<0.01$)。通过相关分析发现,CD₄/CD₈ 比值、NK 细胞与 sIL-2R 呈显著负相关;Scr 与 CD₈、sIL-2R 呈显著正相关,与 CD₄/CD₈ 比值、NK 细胞呈显著负相关。经益气养阴活血祛浊汤治疗后,CD₃、CD₄、CD₄/CD₈ 比值、NK 细胞较治疗前有明显增高,而 CD₈、sIL-2R 较治疗前明显降低。表明益气养阴活血祛浊汤可调节 CRF 气阴两虚证患者细胞免疫功能的紊乱,为该方治疗 CRF 气阴两虚证提供了现代理论依据。

主题词 肾功能衰竭,慢性/中医药疗法 气阴两虚/中医药疗法 益气养阴

慢性肾功能衰竭(Chronic renal failure, CRF)是发生于多种原发性和继发性肾脏病的晚期、严重危害人民健康的常见病和难治病。以往的研究表明,CRF 以气阴两虚证居多,在 CRF 的发生、发展,直至终末期的变化过程中,气阴两虚证是一个重要的转折时期^[1]。为探讨 CRF 气阴两虚证与细胞免疫功能的关系及益气养阴活血祛浊方的作用机理,本研究从 1996 年 1 月~1997 年 1 月,对 CRF 气阴两虚证患者进行了细胞免疫功能的研究,并观察了益气养阴活血祛浊方对其影响,现报道如下。

1 材料与方法

主要试剂及来源:T 淋巴细胞亚群检测试剂盒、自然杀伤(NK)细胞检测试剂盒、可溶性 IL-2 受体(sIL-2R)检测试剂盒、RPMI-1640 液、小牛血清白蛋白均由军事医学科学院邦定生物医学公司提供。

病例选择:病例选自中国中医研究院研究生部肾病专科门诊和空军总医院中医肾病门诊及中医科病房。血清肌酐(Scr)值在 177 μ mol/L 以上,且肾功能不全病史大于 3 个月,符合气阴两虚证辨证标准。

病例排除标准:年龄小于 18 岁或大于 65 岁者,不能按疗程规定用药者,尿毒症期已进入透析的患者,不列入本观察。

诊断标准:原发病的西医诊断按照《实用中西医结合诊断治疗学》的标准对原发病进行西医诊断^[2]。CRF 气阴两虚证辨证标准:按照 1987 年 9 月全国中医肾衰研讨会讨论通过的慢性肾衰中医辨证分型和疗效判定标准^[3]。

一般资料:本组 CRF 30 例中男性 15 例,女性 15 例;年龄 28~64 岁,平均年龄 48.16 $\pm$ 11.40 岁;原发病为慢性肾小球肾炎(CGN)24 例,慢性肾盂肾炎(CPN)5 例,肾小动脉硬化症(Neph Scler)1 例。

正常对照组,共 20 例,均为体格检查合格的健康献血员,来自中国人民解放军总后勤部北京地区血站。男女各 10 例,平均年龄 45.80 $\pm$ 7.50 岁。

一般治疗:低蛋白饮食,每日蛋白摄入量为(0.6~0.8g)/kg 体重,控制感染,纠正水电解质紊乱、酸碱失衡,去除所有可能造成肾功能暂时降低的因素。伴有高血压者用降压药将其控制在正常范围。

中药治疗:给予益气养阴活血祛浊汤。基本方:太子参或党参 15~30g,生黄芪 15~30g,生地黄 10~30g,山茱萸 10g,山药 10g,白术 10g,茯苓 10g,泽泻 10g,牡丹皮 10g,丹参 30g,当归 10g,砂仁 6~10g,白蔻仁 6~10g,制大黄 10g 等。兼湿浊加黄连、竹茹或藿香、佩兰;兼血瘀加益母草、泽兰、赤芍;兼水气加大腹皮、茯苓皮、车前子。

主要观察指标:治疗前后 T 淋巴细胞亚群、NK 细胞、sIL-2R 变化,治疗前后 Scr,血尿素氮(BUN)。

统计学处理:采用组间及自身对照的 t 检验,直线相关与回归。

2 结果

2.1 益气养阴活血祛浊方对 CRF 气阴两虚证细胞免疫功能的影响:附表表示,CRF 气阴两虚证 T 细胞亚群 CD₃、CD₄、CD₄/CD₈、NK 细胞均显著低于正常对照组(P 均 <0.001);CD₈、sIL-2R 则显著高于正常对照组($P<0.05$, $P<0.001$)。益气养阴活血祛浊方治疗后,CD₃、CD₄、CD₄/CD₈、NK 细胞均较治疗前明显升高($P<0.05$ 或 $P<0.001$);CD₈、sIL-2R 则明显低于治

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附表 益气养阴活血祛浊方治疗前后 T 淋巴细胞亚群、NK 细胞、sIL-2R 的比较($\bar{x} \pm s$)

组别	例数	CD ₃ (%)	CD ₄ (%)	CD ₈ (%)	CD ₄ /CD ₈	NK(%)	sIL-2R(u/ml)
正常对照组	20	60.20±6.41	32.25±9.88	20.60±6.08	1.63±0.49	5.00±1.62	328.50±83.62
CRF 气阴两虚证组							
疗前	30	35.60±10.69**	24.60±3.61**	23.80±3.35*	1.06±0.25**	1.47±1.17**	545.67±143.88**
疗后	30	44.27±12.70△△	26.57±5.99△	19.47±4.10△△	1.42±0.40△△	2.37±0.85△△	367.67±72.14△△

与正常对照组比较,* $P<0.05$,** $P<0.001$;与治疗前比较,△ $P<0.05$,△△ $P<0.001$

疗前(P 均 <0.001)。

2.2 CD₄/CD₈ 比值与 NK 细胞、sIL-2R、Scr 与 T 淋巴细胞亚群、NK 细胞及 sIL-2R 的相关性检验:结果 CD₄/CD₈ 比值与 NK 细胞成正相关($r=0.491, P<0.005, n=30$),与 sIL-2R 成负相关($r=0.695, P<0.001, n=30$);Scr 与 CD₃、CD₄ 无相关($r=-0.119, r=-0.263, P>0.05, n=30$);而与 CD₈、sIL-2R 成正相关($r=0.484, P<0.05; r=0.816, P<0.001, n=30$),与 CD₄/CD₈、NK 细胞成负相关($r=-0.488, P<0.05; r=-0.600, P<0.001, n=30$)。

3 讨论

3.1 CRF 气阴两虚证与 T 淋巴细胞亚群的关系:本研究发现 CRF 气阴两虚证患者 CD₃ 水平较正常对照组明显低下($P<0.01$),CD₄ 及 CD₄/CD₈ 比值明显低于正常对照组(P 均 <0.001);CD₈ 明显高于正常对照组($P<0.05$)。表明 CRF 气阴两虚证患者细胞免疫功能低下或紊乱。CD₄/CD₈ 比值减少的原因可能是由于 CD₄ 细胞减少而 CD₈ 细胞增多所造成的。由于存在 T 淋巴细胞亚群的异常变化,分别将其与 Scr 作相关性分析后发现,CD₈ 细胞与 Scr 呈显著正相关($P<0.05$),CD₄/CD₈ 比值与 Scr 呈显著负相关($P<0.05$),提示随着血中肌酐浓度的增高患者的细胞免疫功能状况日趋下降,整个细胞免疫功能处于免疫抑制状态,因而临床气短乏力、腰膝酸痛、头昏耳鸣等虚损症状也随之加重,患感染率增高。表明细胞免疫功能的低下和/或紊乱与 CRF 的严重程度明显相关。

3.2 CRF 气阴两虚证与 NK 细胞的关系:本研究发现 CRF 气阴两虚患者 NK 细胞数较正常对照组明显减少($P<0.001$),其 NK 细胞的减少与 Scr 的增高呈显著负相关,说明随着 CRF 病程的加重,NK 细胞逐渐减少,其自然杀伤活性也随之减弱。同时在 CRF 气阴两虚证患者中,随着肾功能的不断恶化,其 NK 细胞数与 CD₄/CD₈ 比值呈显著正相关,这可能是由于 NK 细胞数的减少,使诱发 T 细胞中 Ti/h 细胞作用减弱,从而使此类患者存在细胞免疫的缺陷。

3.3 CRF 气阴两虚证与 sIL-2R 的关系:本研究发现 CRF 气阴两虚证患者 sIL-2R 水平较正常对照

组明显增加($P<0.001$),由于 sIL-2R 是 IL-2 介导免疫反应的调节拮抗蛋白,而血清中 sIL-2R 水平作为循环中单个核细胞活化的一个敏感的定量指标,也反映免疫细胞活性状态^[4],因此,进一步说明 CRF 气阴两虚证患者存在着细胞免疫功能异常。sIL-2R 作为一种免疫抑制因子,可抑制 T 细胞的增殖反应^[4],同时 sIL-2R 分子的代谢途径是经肾脏从尿中排出,故肾功能障碍时,血 sIL-2R 常增高。我们的研究发现,sIL-2R 不但与 Scr 呈显著正相关,同时与 CD₄/CD₈ 比值及 NK 的细胞数呈显著负相关。表明由于 sIL-2R 在体内积聚增多,抑制诸如 T 细胞、NK 细胞发挥正常的免疫功能,使 CRF 患者细胞免疫功能减弱,这种减弱随病程的加重而更加严重。

3.4 益气养阴活血祛浊方对 CRF 气阴两虚证患者细胞免疫功能的影响:本研究通过对 30 例 CRF 患者给予益气养阴活血祛浊汤治疗前后细胞免疫功能的对照研究发现,治疗后 CD₃、CD₄、CD₄/CD₈ 比值、以及 NK 细胞数较治疗前有明显增加,而 CD₈ 及 sIL-2R 较治疗前有明显下降。说明该方药可能是一方面通过增加 T 淋巴细胞总数、Ti/h 细胞、NK 细胞等正向免疫调节因子,达到提高机体免疫功能以扶正培本,另一方面通过减少 Ts/c、sIL-2R 等负向免疫调节因子达到祛邪的作用,最终使得 CRF 患者机体的免疫功能增强,临床症状得到改善,生存质量得到提高,从而减缓慢性肾功能衰竭的进程。

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征稿启事:本刊“专题笔谈”栏继续征集以下药物的稿件:徐长卿、马鞭草、稀莪草、苍耳草、土茯苓、黄药子、穿山甲、乌梅、补骨脂。要求有别于教科书,确为家传师授或个人经验,重点介绍个人独到的心得体会。截止时间为 2000 年 11 月 30 日。来稿请寄:北京东直门内北新仓 18 号(100700)中医杂志编辑部 2 号编辑收。信封上请注明“征稿”字样。

ABSTRACTS FROM ORIGINAL ARTICLES

A Clinical Observation on 30 Cases with Angina Pectoris Treated with Refined Xue Fu Capsules

Wang Wei, Ma Xiaochang, Wang Xiaofang, et al.

In addition to Routine Remedy for Angina Pectoris for all the patients, Refined Xue Fu Capsules and Xue Fu Capsules were prescribed for the first group (N=30) and the second group (N=34). The third group (N=27) received only routine remedy as control in this single-blinded clinical trial. The total effective rate in these three groups were 96.6%, 73.5% and 70.4%. The effect in the first group was significantly higher than the rest two groups ($P < 0.05$). On EEG examination, it was 73.3%, 41.2% and 37.0%, which favored the first group than the rest two ($P < 0.05$). Significant or very significant difference in serum endothelin-1 content was found between the first two ($P < 0.05$) or between the first two vs. the third group ($P < 0.01$). Addition of Refined Xue Fu Capsules could produce much better therapeutic effects than with addition of Xue Fu Capsules or treated with routine remedy only.

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Key words: coronary diseases/TCM therapy angina pectoris/TCM therapy

(Original article on page 471)

Effect of Recipe for Supplementing Qi, Nourishing Yin and Expelling Turbid Pathogens on Cellular Immunity in Treatment of 30 Cases with Chronic Renal Failure of Deficiency of both Qi and Yin Type

Xu Limei

To determine the effect of TCM drugs on cellular immunity of patients with chronic renal failure of deficiency of both qi and yin type, the lymphocyte subsets, NK cells and sIL-2R were evaluated. A significant decrease in CD₃, CD₄, CD₄/CD₈ ratio and the NK cells ($P < 0.01$), a significant increase in CD₈ ($P < 0.05$) and a very significant increase in sIL-2R ($P < 0.01$) than the normal control group was found in the determination. CD₄/CD₈ ratio and the amount of NK cells were negatively correlated with sIL-2R. Scr and CD₈ were positively correlated with sIL-2R and negatively correlated with CD₄/CD₈ ratio and the amount of NK cells. The increase of CD₃, CD₄, CD₄/CD₈ ratio and the NK cells and decrease in CD₈ and sIL-2R suggested that this recipe could adjust the disturbed cellular immunity and was indicated for cases with chronic renal failure of deficiency of both qi and yin type.

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Key words: renal failure, chronic/TCM therapy deficiency of both qi and yin/TCM therapy

(Original article on page 474)

An Analysis of Efficacy of TCM Drugs in Treating 102 Patients with Gastric Carcinoma in Middle and Late Stages

Yang Jiquan, Zhang Binbin

Drugs for expelling pathogenic cold to resolving stasis, descending the stomach-fire by invigorating the spleen and treating cancer by detoxifying were used in the controlled clinical trial. The one-year, three-year and five-year survival rates in the treatment group (N=69) were 84%, 56.4% and 45.4%, respectively (median, 2.45 years). In comparison with the control group with TCM drugs plus chemotherapy (N=30) it was 76.7%, 53.3% and 43.3%, (median, 1.73 years) respectively. Clinical observation favored the treatment group in improving the symptoms, prolong the survival period, less toxic, less recurrence and metastasis, however, the difference was not significant in statistical analysis.

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Key words: tumors of stomach/TCM therapy stages of tumors
(Original article on page 483)

Correlation of Typing Based on Differentiation of Symptoms and Signs in Chronic Gastritis and Its Significance

Zheng Jiagang, Lu Lingeng, Duan Yanxia, et al.

Correlation between TCM typing of chronic gastritis and the findings about the mucosa in gastroscopic examination was analyzed. In GLM and DUNCAN analyses, the sufferers of insufficiency of both the spleen and stomach were much older than of the damp-heat in the spleen and the stomach ($P < 0.05$), while the latter were much younger than blood stasis in stomach-collaterals ($P < 0.05$). Chronic gastritis caused by *Helicobacter pylori* was irrelevant with its types in TCM. Correspondence and scatter diagram analyses showed that chronic superficial gastritis was in correspondence with the types of damp-heat in the spleen and the stomach and that of incoordination between the liver and the spleen, while atrophic gastritis with proliferation and intestinal metaplasia were in correspondence with the types of insufficiency of both the spleen and stomach, blood stasis in stomach-collaterals and insufficiency of stomach yin. Findings in gastroscopy support the nature of chronic gastritis in TCM that the initial stage is often manifested in excess or heat syndromes. Lingering of the disease is bound to be of deficiency or invasion of heat into the collaterals, or impairment of yin.

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Key words: gastritis/diagnosis gastroscopy/TCM tying

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