

实验研究

莱菔子对人参补益作用的影响

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摘要 历代方书及医家大多认为莱菔子解人参的补益作用,民间也传说服食人参时忌食莱菔子及萝卜。本实验表明,人参对提高小鼠的抗疲劳、耐缺氧及抗应激等方面都有明显作用,而同服莱菔子对上述作用未见影响。

主题词 人参/药理学 莱菔子/药理学 中药配伍

1994年8月,我们曾采取萝卜与人参分别绞汁的方法,同时喂养小鼠,并作为对照观察,以明确萝卜对人参补气作用的影响。结果证明萝卜不拮抗人参的补益作用。从而否定了萝卜解参的民间传说(中国中药杂志1994;19(3):180)。既然萝卜不解参,而同体种子莱菔子是否解参?医学书籍有不同记载。本实验研究参照“萝卜与人参”的实验思路,进一步弄清莱菔子对人参补益作用的影响,并寻找其客观的理论根据。

1 材料

1.1 小鼠:系浙江医科大学实验动物中心提供的ICR纯种,体重 22 ± 2.1 g,雌雄不拘。

1.2 人参及莱菔子:均系绍兴市药品检验所杨锦鑫主任药师鉴定。人参系五加科植物 *Panax ginseng* C. A. May. 的主根,经加工炮制而成(产自吉林),再制成10%水悬液,灭菌备用。莱菔子为十字花科植物 *Raphanus sativus* L. 萝卜的成熟种子(绍兴马安产),微炒,用铁船研碎后制成50%莱菔子水悬液备用。

2 方法

将小白鼠按体重随机分为3组,每组10只。正常对照组用生理盐水(20ml/kg);人参组用10%人参悬液+等量生理盐水(20ml/kg);人参+莱菔子组用10%人参悬液+等量莱菔子悬液(20ml/kg),并用1:4莱菔子水溶液代替水喂养此组动物。各组均每日灌胃给药1次,容积20ml/kg,共5日。末次用药后4小时测小白鼠的攀挂持续时间、耐缺氧、耐热、耐寒和低温游泳时间。

3 结果

3.1 抗疲劳作用:实验于末次给药后4小时进行。小鼠负重为其体重的70%。方法是将小鼠尾部系上一带线的橄榄形重锤,然后置于垂直于水泥地面的铁丝网上,记录其攀挂的持续时间。表1示,人参组小鼠攀挂时间比对照组长97.9%,而人参+莱菔子组小鼠攀挂时间又比人参组长13.1%。表明莱菔子无拮抗人参的抗疲劳作用。

3.2 耐缺氧作用:实验于末次给药后4小时进行。将三组小鼠分别置于 125 ± 3 ml容积的广口瓶中,密封,记录小鼠缺氧下存活时间。表1示,人参组小鼠生存时间比对照组延长20.6%,人参加莱菔子组小鼠比人参组生存时间略有延长。

表1 各组小鼠抗疲劳及耐缺氧作用的比较

组 别	鼠数	攀挂持续时间(秒)	生存时间(秒)
对照组	10	78.3 ± 17.4	987 ± 75.4
人参组	10	$146 \pm 61.7^*$	$1190 \pm 114^*$
人参+ 莱菔子组	10	$165 \pm 66.9^*$	$1203 \pm 131^*$

注:表中数据为均值±标准差

* 与对照组比较 $P < 0.01$

3.3 抗应激作用:主要观察各组小鼠对耐热、耐寒、低温游泳试验的影响。

3.3.1 耐热试验:于末次给药后4小时,将小鼠置于 $60 \pm 1^\circ\text{C}$ 的金属板上,记录小鼠双脚提起或以嘴舔脚掌的时间。表2示,人参组小鼠耐热时间较对照组延长119.1%,人参+莱菔子组又比人参组耐热时间延长34.5%。

3.3.2 耐寒试验:于末次给药后4小时,将小鼠置于 $-10 \pm 2^\circ\text{C}$ 环境下,放置55分钟,计算各组小鼠的死亡数。结果示,对照组10只鼠,死亡7只,人参组10只鼠死亡5只,人参+莱菔子组小鼠10只死亡5只。表明人参组小鼠耐寒力增强,人参+莱菔子组小鼠耐寒能力与人参组小鼠一致。

3.3.3 低温游泳试验:于末次给药后4小时,将小鼠放入 10°C ,水深30cm的水槽中,观察小鼠游泳时间,

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直至小鼠头沉入水中10秒不能上浮为止。表2示,人参组小鼠存活时间比对照组延长83.3%,人参+莱菔子组小鼠存活时间比人参组又延长18.2%,有显著性差异($P<0.05$)。

表2 各组小鼠耐热及低温游泳存活时间的比较

组别	鼠数	耐热持续时间(秒)	低温游泳存活时间(分)
对照组	10	14.2±5.1	6.0±1.2
人参组	10	31.2±18.4*	11.0±1.5*
人参+莱菔子组	10	42.0±18.6*	13.0±1.1*

* 与对照组比较 $P<0.01$

4 讨论

人参为补益药,莱菔子为消导药。从传统的配伍理论来说,两者似乎不能配伍在一起,否则莱菔子的消导降低了人参的补气作用。近年出版的一些中药书籍在阐述中药“相恶”配伍时常用人参配莱菔子为例证。全国中医药院校教材《中药学》三、四、五版的“配伍”栏的“相恶”中记载着“人参恶莱菔子”。我们以上试验表明,在上述几项实验指标中莱菔子不恶人参,亦不降低人

参的补益作用。

人参对提高小鼠的抗疲劳、耐缺氧及抗应激等方面确有明显的作用,而同服莱菔子对上述作用未见影响,我们认为同以下两点有关:

第一,补气与行气是两个不同的概念。人参大补元气、益脾补肺;莱菔子消积导滞、下气化痰平喘。两者合用一补一行,起到补而不滞的作用。故我们认为,两药相伍不是“相恶”而是相辅相成。

《本草新编》云:“或问萝卜子专解人参,一用萝卜子则人参无益矣,此不知萝卜子而并不知人参者也,人参得萝卜子,其功更神,盖人参补气,骤服气必难受,非止喘胀之症为然,得萝卜子以行其补中之利气,则气平而易受,是萝卜子平气之有余,非损气之不足,实制人参以平其气,非制人参以伤其气也”。

第二,人参的主要成分为人参皂甙,莱菔子及同体萝卜所含成分为脂肪油、葡萄糖、蔗糖、果糖及多种氨基酸、维生素等,而这些与人参皂甙结合后均不影响人体的吸收。

以上为我们所做的人参莱菔子合用的实验研究,希望同道们予以验证重复。

矽肺病中医辨证治经验

区英麟* 朱国强*

矽肺是由于长期吸入含结晶型游离二氧化硅粉尘(矽尘)所引起的以肺组织纤维性病变为主的疾病。早期临床症状多不明显,出现胸闷气短较早,随着病程的发展症状出现胸痛、呼吸困难,甚至不能平卧,胸部X线片检查出现结节阴影,大块融合病灶,其次为肺门增大的淋巴结阴影,肺纹理增多变粗,胸膜在晚期可见肥厚及粘连。矽肺目前尚无理想的治疗方法。

中医称矽肺病为“末石伤肺”,历代名家对该病的专项论述较少,但其机理与中医“肺痿”相似。笔者根据晋·王叔和《脉经》认为“肺痿咳唾,咽燥欲饮水者,自愈”,着重用生津液的药物,选用《济生拔粹》中的紫菀散作为基础方剂,以取其补气养阴生津之效。原方组成:人参(一般用红参)、紫菀、知母、桔梗、甘草、五味子、茯苓、阿胶(无咳血者一般减去阿胶,痰湿不重者去茯苓)。气短喘促者,加苏子、杏仁。血虚者,加熟地。阴虚津枯重者,加玉竹、沙参。咳血者,加田三七。方中取人参大补元气,止渴生津,益智安神;紫菀、苏子、川贝

母、桔梗化痰止咳平喘;五味子敛肺滋肾,生津平喘安神;阿胶补血止血,滋阴润肺;茯苓健脾安神。咳血者加田三七,以加强化痰止血。阴虚津枯重者,加玉竹、沙参以滋阴生津。咳嗽喘促加苏子、杏仁以止咳平喘。经临床治疗数十例“矽肺”病人,效果比较满意。

病例介绍:黄某,女,48岁,1992年1月14日诊。主诉:长期身体不适,咳嗽胸痛,气促。患者面色枯黄,气促咳嗽,舌红少苔,脉数无力。查职业史中,患者原于1959年起在某船厂从事船舱电焊工。1991年曾诊断为I°电焊尘肺。该电焊尘肺的发病原因是由于长期大量吸入电焊烟尘所致。肝功能:总蛋白76g/L,球蛋白28g/L,白蛋白48g/L。B超显示,肝、胆、脾、肾均未见异常。X线诊断:I°电焊尘肺,肺纹理多,两下肺呈小网状改变,心影呈主动脉型。中医诊断为肺痿症。其咳嗽胸痛气促是由于肺痿伤津,津液枯燥,不能润肺所致。治疗以补气养阴生津。方用紫菀散加减:红参20g,紫菀12g,知母12g,川贝母15g,甘草5g,五味子20g,苏子12g,10剂。药后气促改善,续用本方去苏子,守方间断服药。1995年10月4日,X线复查I°尘肺未见发展,面有光泽,咳嗽气促和胸闷消失,自觉良好。

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ABSTRACTS OF ORIGINAL ARTICLES

Influence of Acupuncturing Fengchi - Point on Cerebral Blood Flowing.

Yuan Xiaojun, Hao Xishu, Lai Zhongping, et al

By using percerebral Dopler Ultrasonic exam. observation was made on the changes of blood flowing in basilar artery before and after acupuncturing of Fengchi points in 97 cases. Results showed that there was significant changes in blood flowing velocity before and after acupuncturing in the treating group of rapid blood flowing and slow blood flowing types ($P < 0.001$). And the significance of samples from the treating group and controlled group before and after acupuncturing was also significant ($P < 0.001$).

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Key Words: plethysmography/impedance acupuncture effect/point, Fengchi

(Original article on page 285)

Action of Remedies of Supporting Resistance and Relieving Blood Stasis on Metastasis of Post-operative Gastric Cancer and Its Influence on Ornithine Decarboxylase.

Bu Ping

Thirty-two cases of post-operative cancer of stomach were treated with remedies of supporting resistance and relieving stasis with another group treated with western drugs for comparison. Results revealed that the metastatic rate had been greatly decreased, also the content of ornithine decarboxylase was markedly dropped, suggesting that lowering rate of post-operative metastasis might be related to the activity of ornithine decarboxylase.

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Key Words: cancer of stomach/surgical operation

(Original article on page 290)

One-hundred Fifty Cases of Chronic Brucellosis Treated with Differential Diagnosis of Syndromes.

Sheng Yongfu, Hu Suhua

Four types, including deficiencies of Qi-blood, Yin-deficiency of Liver-kidney, blood-stasis and damp-heat, were differentiated in 150 cases of chronic brucellosis for treatment with respective traditional materia medica. 59 cases were cured. 54 case basically

cured. 25 cases mitigated and 12 cases ineffective. the total effective rate being 92 %.

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Key Words: Brucella/TCM therapy Treatment based on differentiation of syndromes

(Original article on page 292)

Diagnosis and Treatment of 52 Cases of Protracted Pneumonia in Children.

Bao Jing

Since antibiotic therapy is not satisfactory to children's protracted pneumonia, the patients used to pursue TCM therapy. 52 cases of such patients were treated by this author since 1983. Results revealed that the treating principle of dispersing and clearing method along with tonification as core therapy was satisfactory to elevate the therapeutic effect. The patients were differentiated into 4 types, lung-heat with deficient fluid, failure of spleen (earth) to support lung (metal), weakness of Ying and defensive levels, and stagnant pathogens due to Qi-deficiency.

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Key Words: Protracted pneumonia/TCM therapy treatment based on differentiation of syndromes

(Original article on page 294)

Influence of Semen Raphani on Tonic Action of Radix Ginseng.

Wu Xinghe, Guan Yunli, Zhou Dehe, et al

In ancient recipe books and according to ancient physicians, it was said that Semen Raphani might neutralize the tonic action of Radix Ginseng, and it was also a folk belief that raddish and Semen Raphani were tabooed when administering Radix Ginseng. In our experiments, results showed that Radix Ginseng yielded marked actions of anti-fatigue, anti-anoxia and anti-irritation in mice, mean while no influence can be observed when administering Semen Raphani at the same time in such experiments.

Authors' Address: Shaoxing City Hospital, Shaoxing Zhejiang Province 312000

Key Words: Radix Ginseng/ pharmacology Semen Raphani/pharmacology compatibility of drugs

(Original article on page 300)