5号祛腐生肌散“生肌”作用的实验研究

天津中医药大学
李建新* 汤化橘 朱晓峰 刘 迪 夏国西 李 竞 朱东青* 陈学瑞*

5号祛腐生肌散是天津市中医结合外科疮疡研究所治疗体表溃疡常用的一种制剂之一，近年来临床观察，对临床慢性溃疡、脓肿等瘘管患者，确有加速伤口愈合的作用。愈合后的愈痕多呈线状，很少发生瘢痕孪缩。为探讨其机理，我们进行了以下工作。

材料与方法
健康成年雄性大白鼠32只，体重180±25g，常规饲养1周后随机分为两组。将32只大白鼠分为两组，每组16只。将大白鼠置于观察笼内，每日观察伤口愈合情况，备用。参照北京军事医学科学院创伤外科制定的实验方法，制备动物的实验模型。实验组每日每只大白鼠腹腔注射5号祛腐生肌散160mg；对照组每日每只大白鼠腹腔注射等量的生理盐水，每日观察伤口愈合情况。手术后第3天，大白鼠用麻醉剂处死，分离皮下组织，制备组织切片，经H氏染色，进行组织学观察。手术后第10天，大白鼠用麻醉剂处死，分离皮下组织，制备组织切片，根据愈合情况，分为原位愈合组、手术愈合组和增生性愈合组。

结果
1. 实验组动物用药后一般情况明显优于对照组，手术创面愈合较早，运动进食饮水情况正常。
2. 5号祛腐生肌散对肉芽组织生长的影响。实验组动物伤口肉芽组织生长速度明显快于对照组。
3. 肉芽组织切片的组织学观察。实验组动物伤口肉芽组织切片，镜下可见肉芽组织细胞数目多，排列致密，分列显著。毛细血管数量多，管壁薄，管腔较粗，对照组肉芽组织细胞数量少，毛细血管数少。

讨论
从本实验结果分析，5号祛腐生肌散的“生肌”作用即对伤口修复过程的影响，体现在如下三个方面。

1. 促进细胞的增殖分化与肉芽组织的增生，这在一定程度上反映加快伤口的愈合速度。肉芽组织的主要成分为新生血管和成纤维细胞，凡能促进成纤维细胞增殖即有利于伤口愈合。
2. 本实验中采用大白鼠作为实验动物，观察结果显示，5号祛腐生肌散可促进成纤维细胞和毛细血管内皮细胞增殖分化的作用。
3. 促进巨噬细胞的游走。从实验组织观察，肉芽组织切片较厚，内含有较多的巨噬细胞，明显区别于对照组。伤口内的巨噬细胞，除具有吞噬细菌、异物和坏死组织碎片，提高局部的抗感染能力外，还能分泌促成纤维细胞增殖的物质。

参考文献
mic. These findings conformed with the descriptions in ancient Chinese pharmacopoeia in which *Cordyceps* was considered as a tonic particularly helpful to aged people. *Cordyceps sinensis* is actually a worm (the larva of *Hepialus armoricansus* Oberthür) infected with fungi. One specimen of fungus has been isolated and identified as *Paecilomyces hepial Chens*. The extract of mycelium cultivated by fermentation of this fungus, CsB, was shown to have pharmacological actions similar to, and even more potent than that of CsBN, the ethanol extract of the natural drug. A preliminary study on cholesterol feeding induced hyperlipidemia in rabbits revealed promising hypolipidemic and antiatherosclerotic action of this extract. In ischemic cerebral cortex of Mongolian gerbils, pretreatment of the extract increased the content of 6-keto-PGF₁α and decreased that of thromboxane B₂, therefore, increased the PGI₂/TXA₂ ratio significantly. Clinical trials with double blind method showed an average of 17.5% decrease in serum TC and 27.2% increase in HDL-C. The total effective rate for 159 cases of patients suffering from impotence was found to be 64.2% which was much higher than 23.7% of the controls. (P<0.01).

*(Original article on page 352)*

**Experimental Research on Promoting Granulation Effect of No. 5 Qufu Shengji San**

Li Jianxin (李建新), et al

*Tianjin College of TCM, Tianjin*

No. 5 Qufu Shengji San (QFSJS) is one of the five powders for the common use of treatment according to the principle of eliminating the putrefied tissue and promoting the granulation in treating the superficial ulcers. It consists of *Concha Margaritifera usa, Elephas africanaus, Crinis carbonisatus, Calamine, Daemonorops dicroco, Acacia catecha, Gypsum fibrosum* and *Borneol synthetica*. After mixing they were ground into fine powder. In clinical practice it was used in the repairing phase of the superficial ulcer after the ulceration and exhaustion of the necrotic tissue and pus. Clinical observation for several years revealed that this remedy could accelerate the healing of superficial ulcer. In order to study the mechanism of promoting granulation effect, the weight of granulation tissue was measured after applying this medical dressing typically on the superficial ulcer of experimental rats, and histological examination was also made. The result showed the weight of the newly grown granulation tissue of the experimental group was heavier than that of the control animal. Histological examination revealed that the granulation tissue of the experimental group had three characteristics: (1) Their capillaries were abundant, the caliber larger and the wall of the capillaries thinner; (2) There were more macrophages in every growing stage; (3) There were more fibrocytes with the phenomenon of karyokinesis in the initial stage.

The result of the experiment indicated that the promoting granulation effect of No. 5 QFSJS was correlated to the following three factors: (1) Promoting the proliferation and differentiation of the cell; (2) Promoting the wandering out of macrophages; (3) Improving the local blood circulation, accelerating the metabolism of the wound surface.

*(Original article on page 355)*

**Effects of Acupuncture on Cystic Activity Relevant Discharging Units in Amygdala and Pallidum**

Zhang Hui (张 会), Zhang Zhixiong (张志雄), Wu Dingzong (吴定宗)

*Shanghai College of TCM, Shanghai*

40 anesthetized cats with artificially respiratory state were used for experiments. The results were: (1) Electrical stimulation of lateral Amygdala area induced cystic constriction, while stimulating the medial Amygdala area and Pallidum mainly caused vesical relaxation; (2) The effect of acupuncture on elevating cystic pressure were increased by resection of forebrain behind the Amygdala and Pallidum (P<0.001); (3) Discharging of 403 neural units were investigated, among which, 55 units were correlated with acupuncture adjusting cystic activity, 32 of them were frequency-enhancing type (27 units in Amygdala, 5 units in Pallidum), while 23 were frequency-reducing type (17 units in Amygdala, 6 units in Pallidum). The change of discharge preceded that of cystic pressure in most cases. Other kinds of change of discharge were also discussed. All results revealed that acupuncture could affect the activity of Amygdala and Pallidum resulting in adjusting cystic pressure.

*(Original article on page 356)*