

# 中药蝮蛇的鉴定研究

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**摘要** 考证了本草记载的蝮蛇实为蝰科蝮亚科动物蕲蛇(尖吻蝮)*Agkistrodon acutus* Guenther, 现药用蝮蛇为蝰科蝮亚科动物蝮蛇*Agkistrodon halys* Pallas 对蝮蛇的原动物和显微特征的鉴定研究,为药材商品的鉴定提供了依据。

**关键词** 蝮蛇 蕲蛇 原动物特征 显微特征

蝮蛇为民间常用中药,具有祛风、攻毒的功效。现已制成蝮蛇酒、蝮蛇粉胶囊等多种剂型,不仅用于营养保健,而且对麻风病、风湿性关节炎及皮肤顽癣等均有一定的疗效。但蝮蛇自古就有混乱现象,加之品种复杂,种下分类争议较多。现从本草考证、原动物及显微特征等方面对其进行鉴定研究。

## 1 本草考证

本品始载于《名医别录》,陶宏景曰:“蝮蛇,黄黑色如土,黄颌尖口,毒最烈。”苏恭曰:“蝮蛇作地色,鼻反,口长,身短,头尾相似,大毒。”李时珍按尔雅云:“蝮蛇身博三寸,首大如擘”;又引用郭璞云:“蝮蛇惟南方有之,一名反鼻,细颈,大头,焦尾,鼻上有针,锦纹如绶,……大者长七、八尺。”按上述“口尖、鼻反、大者长七、八尺”之形态特征,乃系蝰科动物蕲蛇(尖吻蝮)*Agkistrodon acutus* (Guenther),而非今市售之蝮蛇;而上述蝮蛇,虽大小相近,但无具体特征描述,无法考证其何物。《中药大辞典》曰:“蝮蛇为蝮蛇科动物,头部呈三角形,吻部圆……体侧各具黑褐色圆斑约 30 个。”而《安徽两栖爬行动物志》及《浙江动物志》(两栖类·爬行类)等书均明确阐述为蝰科动物,其鉴别特征为“头呈长三角形,头背具对称的大鳞片,眼前具颊窝、体背有两纵行深色圆斑。”可见蝮蛇确系蝰科动物无疑。至于蝮蛇的分种和种下分类,国内外学者至今仍有争议,仅短尾亚科*Agkistrodon blomhoffii brevicaudus*的意见比较一致。张孟闻等均主张不分亚种。考虑到药用分类宜粗不宜细的原则,认为种下不必分亚种,入其原动物来源当以蝰科蝮亚科动物蝮蛇*Agkistrodon halys* Pallas 为妥。

## 2 原动物特征

样品取自于苏州蒙大奇保健品厂。本品全长 54~80cm。头部呈三角形;吻部圆,吻鳞宽稍大于高。鼻间鳞较宽短,外侧尖细而略弯,鼻孔近圆形,将较大的鼻鳞分为前后两半。颊鳞 2(1);眶前鳞 2(3);眶上鳞 1 枚,宽大;眶后鳞 2,有时腹侧 1 枚与眶下鳞合并;眶下鳞新月形;颞鳞具棱,前颞鳞 2(3),后颞鳞 3(2、4);上唇鳞多为 7 枚,第 1 枚与鼻鳞相切,有时入颊窝,第 2 枚最小,第 3 枚最大,常入眶,多呈 2-1-4 式,少数为 2-2-3 式,上唇鳞 8 枚者呈 2-2-4 式,也有上唇鳞不入眶的,下唇鳞 8~10 枚,多为 9 枚,前 3~5 对与 2 对颊片相切。颊窝位于眶前鳞与颊鳞之间,为眶前鳞、颊鳞包围,有的颊窝腹缘具一枚细长的窝下鳞。背鳞起棱,通常 23~21~17 行;腹鳞雄蛇 122~142,雌蛇 122~143;肛鳞 1 枚,完整;尾下鳞雄蛇 30~39 对,雌蛇 29~38 对。头背棕黑,眼后方有较宽的黑色带状条纹,黑带的背缘有一明显的白眉纹,头的腹面及前后颊片的两侧各有一块长形的深色斑(黑斑)。体背有两纵行深色圆斑,约 30 个。背鳞外侧与腹

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鳞间有一行不规则的黑褐色粗点；腹面灰白，密布深色细点，尾的腹面后半部灰白色，无斑点（图1）。

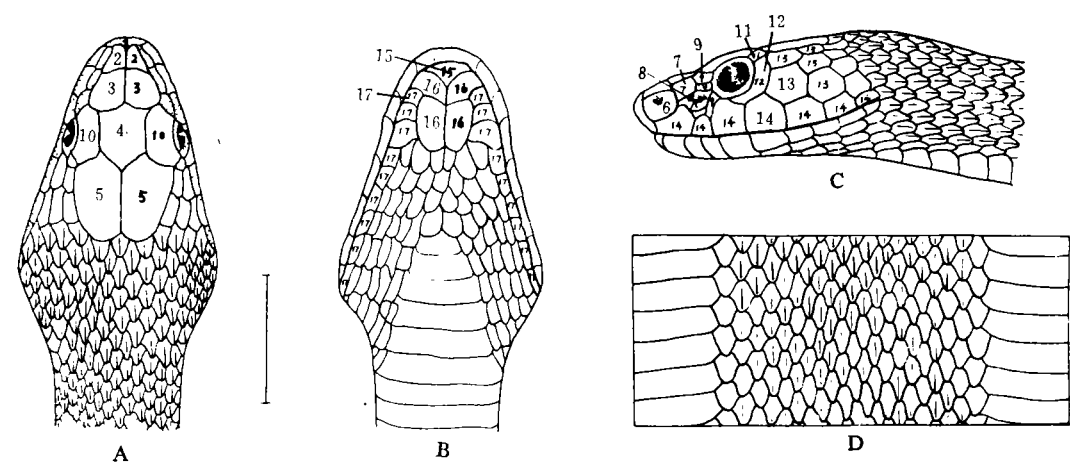


图1 蝮蛇的鳞片

A-背面 B-腹面 C-侧面 D-背鳞

1-吻鳞 2-鼻间鳞 3-前额鳞 4-额鳞 5-顶鳞 6-鼻鳞 7-颊鳞 8-颊窝 9-眶前鳞 10-眶上鳞 11-眶后鳞 12-眶下鳞 13-颞鳞 14-上唇鳞 15-颊鳞 16-颊片 17-下唇鳞

3 显微特征

本品粉末灰白色。角质鳞片碎片近无色或淡褐色，表面观呈类多角形或半圆形乳突状，细胞内充满棕褐色色素颗粒。横纹肌纤维较多，无色或淡黄色，多碎断，侧面观多呈条块状，明暗相间的纹理隐约可见，纹理细密且较平直。骨碎片近无色，呈不规则碎块，骨陷窝长梭形，大多同方向排列，骨小管易见（图2）

4 结果与讨论

4.1 蝮蛇与蕲蛇（尖吻蝮）均属蝮科蝮亚科蝮属动物，其外形特征有明显区别：蕲蛇头大，三角形，吻尖，吻鳞及鼻间鳞向前上方翘起，体背有20多个方形斑；而蝮蛇头略三角形、吻部钝，不向上方翘起，鼻间鳞外侧尖细，略向后弯，似逗点状，体背有两纵行大圆斑约30个。

4.2 蝮蛇甘、温、有毒，其毒液源于头侧左右颞部皮下的毒腺，所以用前应当除去头部，以减少毒性，保证其用药安全有效。

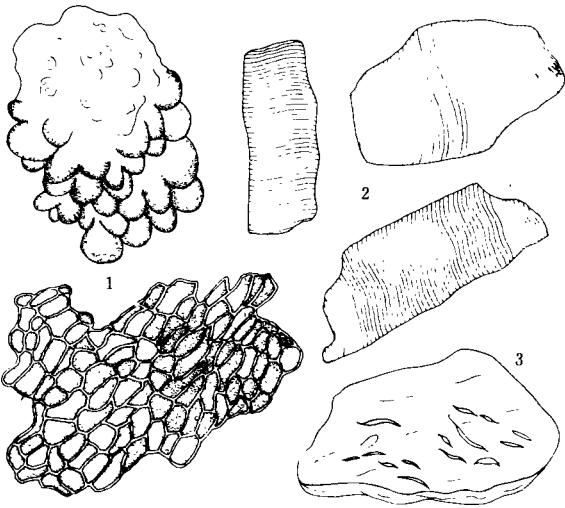


图2 蝮蛇粉末显微特征

1-角质鳞片碎片 2-横纹肌纤维 3-骨碎片

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## Effects of Tangut Dragonhead (*Dracocephalum tanguticum*)

### on Blood Rheology and Tissue Morphology in Rats

Hai Ping, Ye Yucong, Zhao Guilan, et al

The effects of an aqueous extract of *Dracocephalum tanguticum* Maxim. (DtM) on  $\eta_p$ ,  $\eta_b$ ,  $\eta_{b-l}$ , Hct, ESR, ESR-k and EPT of rats were studied by ip route. The animals were divided into three groups: normal pressure control group (NCG), low pressure treatment group (LTG) and low pressure control group (LCG). All  $\eta_p$ ,  $\eta_b$ , Hct, ESR-k increased significantly in rats exposed to stimulated altitude of 6500m for 10 days (8h/day), and the platelet and the ratio of left to right ventricle weights were obviously decreased in comparison with NPG. The above parameters of LTG, except Hct, have no obvious difference as compared with NCG. Hct in LTG increased obviously but lower than LCG. These results suggested that DtM may be used as an inhibitory agent against the changes of induced-hypoxia blood rheology, decreased platelet and hypertrophic right ventricle. In addition, the observation of tissue morphology showed that DtM possesses some therapeutic effects to injuries of lung, liver and kidney of hypoxia rats.

(Original article on page 611)

## The Effects of Zhigancao and Glycyrrhizic Acid

### on Transmural Potential of Reverted Mouse Small Intestine in Vitro

Cui Zhiqing, Zhang Huiru, et al

Electrical potential difference (PD) was measured across the wall of reverted small intestinal sacs of mice. The effect of glycyrrhizic acid on transmural potential related to  $\text{Na}^+$  and glucose transport were investigated. It was found that both zhigancao (100g/L) and glycyrrhizic acid (2.5mmol/L) decreased the PD ( $P < 0.01$ ).

According to the theory of active transport of glucose, we inferred that zhigancao and glycyrrhizic acid possibly produce an inhibitory effect on  $\text{Na}^+$ ,  $\text{K}^+$ -ATPase, resulted in a blocking effect on sodium channel.

(Original article on page 613)

## Identification of Chinese Cheqiancao by UV Spectrophotometry

Zhang Zhengqiu, Li Feng, Cao Aimin, et al

17 Cheqiancao produced in China were identified by UV spectrophotometry. The differences of their UV spectra were listed.

(Original article on page 617)

## Study on Identification of Pit Viper (*Agkistrodon halys*)

Di Hengjian, Teng Jianchang

It was verified that Fushe under current medical use was actually *Agkistrodon halys* (pallas), which is different from *A. acutus* (Guentler) belonging to crotalinas, viperidae as described in works of Chinese materia medica. Microscopic characteristics of the raw animal was provided to furnish a guide for the differentiation of the two medical commodities.

(Original article on page 651)

## 大型实用工具书《中药现代研究与临床应用》I、II 已经出版

该书是一部全面、系统、详实地反映常用中药各领域研究成果的大型专著,对常用中药化学成分、分析方法、药理作用、药剂学和炮制研究、组织培养及现代临床应用逐项进行全面的论述,特别是对近十年新的研究成果作了重点的论述,为保障全书内容更为全面,特与美国权威检索机构联网,对国外研究中药的情况进行了计算机检索,获得了大量难得的资料。全书共引用国内外论文超过 15000 篇,其中仅人参就有 500 余篇。该书具有较强的科学性、系统性和实用性,第 I 册收载中药 119 种,第 II 册收载中药 160 种。I、II 册共 279 种。该书对广大的中医药工作者,医药大专院校师生具有很大的参考意义,为中药的研制开发可提供全面系统的基础资料,欲购者请直接汇款至北京东直门内中国中医研究院针灸所收发室转阴健收(100700)。第 I 册 88 元,第 II 册 85 元,邮购另加 15% 邮费。