

## Antiinflammatory Effects of Ferulic Acid

Hu Huijuan, Hang Bingqian, Wang Pengshu

Department of Pharmacology of Chinese Materia Medica

Ferulic acid (FA) is one of active components of *Radix angelicae sinensis*. FA inhibited the swelling of mouse ear induced by xylene and the increase of capillary permeability induced by acetic acid in mice and histamine in rat. FA inhibited hindpad edema induced by injection of carrageenan, fresh egg white and formaldehyde in rats. Similar effects were seen in adrenalectomized rats. FA also reduced the proliferation of granuloma caused by cotton pellet. It suppressed the biosynthesis or release of prostaglandin E<sub>2</sub> in inflammation induced by carrageenan, but showed no effects on the migration of leucocyte. In addition, FA significantly inhibited the complement activity activated by alternative pathway. It is suggested that antiinflammatory effects of FA may be due to various ways affecting inflammatory processes and are not dependent on system of pituitary gland-adrenal.

**Key words** Ferulic acid; Antiinflammatory; Complement hemolytic activity

·论文摘要·

### 金缕梅亚纲一些类群的植物化学及系统学研究

姜志宏 导师: 周荣汉

(植物化学分类研究室)

金缕梅亚纲(Hamamelidac)系统发育的研究对解决被子植物起源与进化的问题有重要作用,本文试图从植物化学的角度探讨金缕梅亚纲的系统发育及其中一些科的系统地位。从枫香(*Liquidambar formosana*)和马尾树(*Rhoiptelea chiliantha*)树皮中共分离出7个化合物,鉴定了其中4个,从马尾树皮中分到的一个三萜酸为具有新骨架的化合物,填补了三萜类化合物生源途径中的空缺;采用GC法分析了金缕梅亚纲七种植物种子脂肪酸成分及其相对百分含量;采用GC/MS/DS法鉴定了五种金缕梅亚纲植物叶中132个挥发性成分;采用TLC法分析了五种环烯醚萜在金缕梅亚纲中的分布,首次证实在蕈树属(*Altingia*)和半枫荷属(*Semiliquidambar*)含有环烯醚萜类化合物。在以上的一些化学数据的基础上,结合形态解剖、胚胎学资料对金缕梅科及相关科、马尾树科及相关科分别进行了数量化学分类学(Numerical chemo-taxonomy)研究。根据以上的研究结果,综合现有的金缕梅亚纲的化学资料,从化学系统学角度讨论了金缕梅亚纲中枫香亚科、马尾树科、交让木科、杜仲科和双颗粒科的系统地位,提出了关于金缕梅亚纲系统发育的一些新的观点。(全文待发表)

### 中药贯众类的生药学研究

马国祥 导师: 徐国钧 金蓉莺 徐珞珊

(生药学教研室)

对贯众产区进行药源调查,鉴定出6科12种原植物,即:粗茎鳞毛蕨 *Dryopteris crassirhizoma*、阔鳞鳞毛蕨 *Dryopteris championi*、贯众 *Cyrtomium fortunei*、菱果蕨 *Matteuccia struthiopteris*、蛾眉蕨 *Lunatherium acrostichoides*、狗脊 *Woodwardia japonica*、胎生狗脊 *Woodwardia prolifera*、单芽狗脊 *Woodwardia unigennumata*、乌毛蕨 *Blechnum orientale*、紫萁 *Osmunda japonica*、分株紫萁 *Osmunda cinnamomea* var. *asoatoca*、桫椤 *Cyathea spinulosa*。从绵马贯众、紫萁、狗脊、单芽狗脊、贯众、乌毛蕨、菱果蕨等的显微鉴定发现,分体中柱的形状和排列方式、间隙腺毛、分泌细胞、分枝状细胞、演粉泣等的有无和形态特征是鉴别要点。商品鉴定结果,主流品种为绵马贯众、紫萁、菱果蕨、狗脊、单芽狗脊,在新疆发现欧绵马。从绵马贯众中分离鉴定出东北贯众素(dryocrassin)和绵马酸ABA(filic acid ABA),并对上述2种成分进行含量测定,结果绵马贯众中分别含4.01%和1.78%。(全文待发表)