

高乌甲素霜搽剂治疗急性软组织损伤 实验及临床观察

兰州军区总医院创伤外科研究所(730050)

白孟海 陈东安 葛宝丰 王勇 兀志华

摘要 本文介绍应用中药高乌头的提取物高乌甲素制成外用霜搽剂,用于治疗急性软组织损伤。经动物实验及 500 例病例观察,结果表明:该药具有较好的消肿、止痛、祛瘀作用,无毒副作用,总有效率达 99.2%,使用方便,是治疗急性软组织损伤的理想外用药。

关键词 软组织损伤 高乌甲素 中药外治法 实验研究 临床应用

1989 年 6 月~1993 年 5 月,从地产中药高乌头中提取出高乌甲素,制成外用霜搽剂。在动物实验的基础上,应用于临床,取得满意的效果,总结如下。

实验材料

1. 软组织损伤打击器,打击力为 31.67N。
2. 小白鼠:昆明种,共 60 只,体重 18~22g,雌雄兼用。
3. 高乌甲素霜搽剂。本所研制,兰州制药厂生产。

实验方法

1. 软组织损伤模型:小鼠臀部处用剪刀去毛,俯卧固定于木板上。打击器内心对准臀部软组织,打击棒向下打击,连续 3 次。受击的小鼠臀部皮肤立即出现血块。每只小鼠只打击左侧臀部。然后将软组织损伤的动物随机分成高乌甲素、樟脑酊、对照组。每组 10 只,高乌甲素、樟脑酊组,局部涂搽,每日 3 次,分别在 24 小时,72 小时处死动物。切开打击部位,按外表和组织学观察四级评分。计两项积分,评价疗效。

2. 软组织损伤的治疗观察评分标准参考周氏计分法^[1]分别对外表观察和组织学光镜观察进行综合评分。

结果

不同时间观察对小鼠软组织损伤实验治疗结果见表 1。24 小时二实验组与对照经统计学处理,有明显差异($P < 0.01$)。72 小时实验组与对照组亦有明显差异($P < 0.05$)。而高乌甲素组与樟脑酊组相比,也同样有差别($P < 0.05$)。

组织学观察见经高乌甲素霜治疗后,在 72 小时时,外表接近于正常组织,切开肌组织个别见矢状出血。而外敷樟脑酊组结果明显低于高乌甲素组。

高乌甲素组,积分明显低于其他组。具有明显的治疗效果。

表 1 24 和 72 小时对小鼠软组织损伤的评分结果

组别	观察方法	积 分	
		24 小时	72 小时
高乌甲素	外表	22	3
	组织学	23	7
樟脑酊	外表	30	13
	组织学	30	19
对照组	外表	30	24
	组织学	30	27

临床应用观察

本组共 500 例,男 300 例,女 200 例;年龄 5~70 岁;上肢损伤 46 例,下肢损伤 390 例(踝关节扭伤 224 例,小腿损伤为 166 例),腰部损伤 50 例,其他部位损伤 14 例;病因有撞、扭伤,自行车绞伤等所致;多数病人是第一次来就诊,有少数病人用其他方法治疗无效而来就诊。

治疗方法:首先对损伤部位进行细致的检查、定位,对临床症状较重的病人进行 X 线拍片检查,在确定无骨折、脱位、血管、神经损伤后,在局部涂搽高乌甲素霜搽剂。范围超越损伤区域边界 3cm,每日 3 次,5 天为一疗程,一个疗程后,可继续作第 2 个疗程。

结果:500 例急性软组织损伤病人,治愈 486 例,治愈率为 97.2%。症状消失,功能恢复,显效 10 例。症状无明显改善 4 例(4 例均为腰部损伤病例,其中 2 例,以后 X 线拍片示有隐性脊柱裂)。总有效率为 99.2%,最少治愈天数为 2 天,最多的治愈天数为 5 天,平均为 3.5 天。

讨 论

高乌甲素又名拉巴乌头碱(Lappaconitine),从毛茛科植物高乌头(Aconitumsinomonatum)中提取到的一种生物碱,常用其氢溴酸盐,高乌甲素具有祛风、除湿、散瘀、消肿及止痛等功效,对各种组织均无损害,无致畸和蓄积作用,不成瘾。临床证明它对多

种疼痛,炎症水肿有效,并具有持久的镇痛作用^[2]。

急性软组织损伤主要病理改变是软组织结构破坏和出血、渗出、水肿、肌痉,因此使用高乌甲素正是利用了镇痛、散瘀、消肿的作用。经动物实验及对临床病例应用,疗效肯定,镇痛、去瘀、消肿效果明显,无毒副作用,使用十分方便。

参考文献

1. 周国林,等. 一种动物软组织损伤的实验方法. 中国药理学通报 1991;7,396—397.
2. 陈新谦,等. 新编药理学,第 12 版. 北京:人民卫生出版社,1990:228—229.

膝关节色素沉着绒毛结节性滑膜炎误诊 1 例

河北中医学院附属医院(050011) 田伟明 郭海牛

宋××,男,46 岁,农民,(住院号 45272)。10 年前无明显诱因左膝关节前外侧出现一硬结,伴局部不适,未加重视。3 月前因出现疼痛而到当地医院局部封闭两次,2 月前出现左膝关节肿痛伴发热,体温 39°C。当地医院以“左膝关节滑膜结核并发感染”入院,经抗感染、抗结核治疗及膝关节闭式引流冲洗,症状、体征均无减轻,且于 10 天前左小腿内上方肿胀剧烈,切开后流出血性液体,之后引流口内渗出液不断,切口不愈合,膝关节肿胀却逐渐减轻。为求进一步治疗而于 1993 年 4 月 19 日来我院住院治疗。

检查 体温 37.8°C,左膝整个肿大,有软韧感,浮髌试验(+),皮肤不红,肤温较高,左膝呈屈曲位,活动范围:30°(伸)⇌(屈)60°,其外上方及内下方各有约 0.5cm 切口瘢痕,左小腿内上方可见约 3cm 长引流切口,渗出血性液体。白细胞 $8.1 \times 10^3 / \text{mm}^3$,其中中性 63%,淋巴 34%,酸性 3%。其它检查结果均正常。X 片示(片号 40440):左膝关节软组织肿胀,有多个密度稍高于软组织的结节状突起,轮廓清楚,以髌上囊和髌下囊为著。左膝关节滑膜活检(病理号 29209)诊断:左膝关节色素沉着绒毛结节性滑膜炎。

治疗 在单侧腰麻下施左膝关节滑膜切除术,术中见全部滑膜厚约 10mm 以上,呈棕黄色,血性关节

液,髌骨关节软骨约有 $1.5 \times 1 \text{cm}^2$ 损伤,松质骨外露,术后病理结果同术前。石膏托制动 2 周后,早期功能锻炼,配合活血化瘀,通络止痛中药外洗,膝关节功能恢复良好。

讨论 色素沉着绒毛结节性滑膜炎是一种少见的关节疾病,以滑膜高度增生伴棕黄色含铁血黄素沉着为特点。其原因尚未彻底阐明。以中年男性多见,好发于膝关节。常以年计的缓慢进行性肿胀,伴局部不适或微痛,局部皮肤温度可略高,但不红肿,关节活动受限,关节穿刺可吸出较多的血性液体,如病变穿破关节向下肢扩展则受累肢体肿胀。病理上有局限型和广泛型两种。后者则为滑膜增厚、绒毛状增生涉及整个滑膜囊;增厚滑膜之厚度可达 1cm 以上,表面凹凸不平,有皱褶形成,也可相互融合成粗短结节,关节软骨与邻近骨质可因增生之滑膜压迫而破坏。X 片示:关节软组织肿胀,其中有密度稍高于软组织的结节状或分叶状阴影,在膝关节肿胀常限于髌上囊和髌下囊。

本病起病不明显而病程缓慢,早期 X 线表现又不明显,易被误诊为其它关节疾病,因此,对原因不明的慢性进行性关节肿胀、X 片有上述征象、关节穿刺有血性或棕黄色液体者,应想到此病,并与其它关节疾病作鉴别,及时进行关节滑膜活检以明诊断。

Abstract of Original Articles

Clinical and experimental studies on spondylolithiasis treated by manipulation

Institute of Orthopaedics and Traumatology, China Academy of Traditional Chinese Medicine(100700)

Li Xing(李星)Jiang Weizhuang(蒋位庄)

Displacement microsensors were applied to measure fresh cadaver specimens in mimicking the displacement in movement and rotatory reduction. It was found that the inferior facet joint of the lumbar spine producing an upward and lateral displacement to enlarge the intervertebral foramen, the vertebral body producing a tendency of relatively backward and retaining to its original position. Through naked eye observation, there was increasing of the width of the isthmus under the action of manipulation of the gap of isthmus. Thirty-five cases of spondylolithiasis were treated by manipulation with satisfactory results, especially for those suffering with degenerative type. It showed that lying in supine position with flexion of knees and hip joints, by rolling the waist, sitting up exercise and iso-tension training are important procedures in therapy.

Key Words Spondylolithiasis Bio-mechanics Manipulation Iso-tension training

Clinical analysis of twenty-two cases of tower-door type of fracture of ankle joint

Osteopathic Hospital of Wendeng City, Shandong Province(264400)

Zhao Jinmin(赵锦民)Sun Wenxue(孙文学)Sun Xianzi(孙显滋)Tan Qingyuan(谭庆远)Wang Youqiang(王友强)

Tower-door type fracture of the ankle joint is a rare and intra-articular fracture which is difficult to be treated. Twenty-two cases of such kind of fracture were treated with simple manipulative reduction and application of plaster of Paris as external fixation, prizing, dispelling reduction and internal fixation with steel wire, steel wire internal fixation via open reduction, fusion of the ankle joint etc. Better results were gained with prizing-dispelling reduction and internal fixation with steel wire via open reduction. But simple manipulation with plaster of Paris as external fixation and joint fusion had worse results. Pathogenesis of the fracture diagnosis, therapeutic etc. problems were discussed.

Key Words Intra-articular fracture Reduction of tower-door type fracture
Internal fixation with steel wire Joint fusion

Cartilage callus in bone healing

Institute of Orthopaedics and Traumatology, China Academy of Traditional Chinese Medicine(100700)

Xia Zhidao(夏志道)Chang Chaoying(常超英)Fang Shiyuan(房世源)Sun Shuchun(孙树椿)Wang Laihong(王来鸿)Wu Fei(吴非)

Through light microscopic non-decalcified bone histological, histochemical and electron microscopic observations on formation, evolution and ultrastructure of cartilage callus of rabbit radial bone fracture standard defect model during healing process, the results showed that the cartilage callus comes from differentiation of granular tissue of the fracture ends, its formation and reconstruction did not completely similar with ossification in the epiphyseal chondrium. There are five evolutionary stages of cartilage callus cells, the callus under electron microscopic

findings, i. e chondroblasts, chondrocytes hypertrophic chonocytes, degenerative chonocytes and remnant chondrocytes. We realized that 1)the chondrial callus is differentiated from interstitial cells surrounding the fracture end ,2)during reconstruction process, chondrial callus can directly form bone trabeculae. We support the hypothesis that hypertrophied chonocytes. can transfer to bone cells,3)chondrial callus bears important action during healing process. it can fulfil bone defect in the early stage, connect fracture ends, the fracture healing process is completed under the burden of gravity.

Key Words Cartilage callus Fracture healing Morphology

Experimental and clinical observation on Gao Wu Jia Su Shang Cha Ji in treating acute soft tissue injury

Institute of Traumatology, General Hospital of Lanzhou Military Area(730050)

Bai Menghai(白孟海) Chen Dongan(陈东安) Ge Baofeng(葛宝丰) Wang Yong(王勇) Wu zhihua(兀志华)

Externally applied Gao Wu Jia Su, extract of Chinese herb Gao Wu Tou frost ointment was introduced to treat acute soft tissue injury . Through an observation of animal experiment and 500 patients ,the results indicated that the drug bears better dispelling action of edema, analgesic action and dispelling stasis, and it has no toxic and side—effect. The total effective rate reaches 99. 2%. It is easy to be applied ,so it is an ideal external used drug in treating acute soft tissue injury.

Key Words Soft tissue injury Gao Wu Jia Su External therapeutic method with Chinese herb Experimental study Clinical appilcation

Clinical observation of elastic external fixation and functional exercise under burder in treating non—union of tibia

Institute of Orthopaedics and Traumatology,China Academy of Traditional Chinese Medicine(100700)

Li Kexin et al (李可心)

Twenty—two cases of non—union of tibia treated by external fixation with wire and functional exercise under burder. Among them, 10 cases were proliferative type, 12 atrophic type. The causes of tailure are 11 cases for defext in internal fixation, 4 for plaster of Paris fixator, 2 for self—made splint fixation with bad fixation , and 5 for infection of the fracture ends. Through a course of therapy from 87—189 days, with an average of 103 days, 19 cases healed within months ,3 with worse effectiveness. The result of analysis showed that, the maincause of non—union was due to insufficient therapy interference to natural healing process, with limitation of the ability of bone growth. Elasticexternal fixation can improve the stability of fracture ends, offer elastic and interrupted physiological pressure stress. It dons't limit the blood supply action of the muscle pump during functional exercies. It facilitaes recovery the ability of growth of the fracture ends .

Key words Non—union External fixator for fracture