

中药膜形盖髓剂临床及实验研究

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内容提要 运用自拟方,制成中药膜形盖髓剂,临床对 102 只恒牙酌情作直接盖髓或活髓切断术后盖髓,经 1 年以上观察,成功率为 82.4%。动物实验:健康羊牙人工穿髓后直接盖髓 45 天,光镜见穿髓孔完全封闭;狗牙直接盖髓 2 个月,牙髓组织正常。对 10 例深龋人牙,作盖髓剂应用前后的牙本质细菌培养,用药 2 周后,培养均由阳性转为阴性。

关键词 中药膜形盖髓剂 牙髓炎 盖髓术 活髓切断术 抑菌试验

直接盖髓术和活髓切断术是用盖髓剂覆盖牙髓,以达到保存生活牙髓及形成硬组织(牙本质桥)封闭穿髓孔及根管口的目的。目前应用最广的是氢氧化钙制剂,但它有不足之处。我们用中草药制成膜形盖髓剂,进行临床及实验研究,报告如下。

临床观察

一、临床资料 本组 102 例,男 48 例,女 54 例;年龄 9~45 岁,平均 28 岁。患牙均为恒牙 102 只,前牙 8 只,双尖牙 14 只,磨牙 80 只。意外穿髓牙 6 只,有症状不可复性牙髓炎 8 只,无症状不可复性牙髓炎 88 只。

二、治疗方法 盖髓剂处方:黄连、蒲公英、川断、骨碎补、乌贼骨粉、冰片等,制成膜状条形制剂,装入胶囊备用(由山东医科大学实验药厂生产,含生药 8 g/cm²)。治疗时需注意隔湿、排唾,严格防止操作过程中唾液污染患牙,在局麻下去尽龋腐、生理盐水冲洗。若做直接盖髓术,则打开胶囊,用外科消毒剪刀,剪取大小适度药膜贴于穿髓孔处,丁香油氧化锌粘固粉暂封窝洞,轻轻加压;若做活髓切断术,以生理盐水冲洗后,换用消毒钻针,揭除髓顶,用锐利挖匙在根管口处切断冠髓,生理盐水冲洗、止血、置药膜于根管口处,丁香油氧化锌粘固粉暂时封窝洞。术后拍

X 线片作疗效对比观察。术后 1 周。若无症状,则更换永久充填物,定期随访。

三、疗效标准 成功:治疗后 1 年以上无临床症状,牙髓活力正常,X 线片根尖无病变。失败:治疗后疼痛、牙髓活力测验阴性、X 线片根尖出现病变,三者具备其中任何一项者。

四、结果 中药膜直接髓,共 70 只牙,包括 6 只意外穿髓牙,8 只有症状不可复性牙髓炎患牙(先行开髓,出血者以丁香油棉球安抚 1 天)及 56 只无症状不可复发性牙髓炎患牙(去尽龋腐见穿髓,出血新鲜),观察 1~3 年,成功 56 只(80%),失败 14 只(20%)。活髓切断术后中药膜盖髓共 32 只,均为无症状不可复性牙髓炎患牙(检查时见明显穿髓孔,叩诊阴性,去除冠髓后出血新鲜),亦观察 1~3 年,成功 27 只,失败 5 只。102 只总计成功 83 只(82.4%)。

实验研究

一、抑菌试验 门诊随机选择 10 例(共 10 只)深龋牙,用消毒挖匙从龋牙洞底以全龋厚度纵行向上取龋蚀牙本质的一半^①。做血琼脂平板培养,同时置药膜于龋洞内,丁香油氧化锌粘固粉暂封,2 周后取另一半龋蚀牙本质做培养。结果:置药前,10 只牙都有绿色链球菌,其中 3 只牙尚有卡他球菌、2 只牙有肺炎双球菌、2 只牙有白色葡萄球菌、2 只牙有

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四联球菌, 1 只牙有奈瑟氏菌。置药 2 周后, 培养均为阴性。

二、动物实验 2 岁杂种健康雄山羊 1 只, 重 18 kg; 成年杂交健康雄狗 1 只, 重 15 kg, 以 2.5% 巴比妥钠 1 ml/kg 静脉麻醉, 常规消毒, 高速钻作狗后牙颊面、羊切牙唇面牙本质深层 V 类洞, 再以低速 1 mm 球钻穿髓, 以出血为准, 贴药膜盖髓剂, 暂封。45 天处死山羊, 拔除充填物完好的 3 只切牙; 2 个月时处死狗, 拔除充填物完好的 4 只牙, 立即固定于 10% 福尔马林液中, 脱钙、石蜡包埋、切片、HE 染色、光镜观察。镜下见: (1) 3 只山羊牙髓组织正常, 穿髓孔完全封闭, 穿髓孔下方为钙化物, 其深层为修复性牙本质, 其管径较粗、短, 走向与原发性牙本质稍不一致。(2) 狗牙牙髓组织正常, 造牙本质细胞排列整齐, 有新生牙本质(由于切片制作问题, 未能见穿髓孔全貌)。

讨 论

一、盖髓剂药物配伍及性能 黄连、蒲公英有广谱抗菌作用; 乌贼骨粉含碳酸钙 80~85%、少量磷酸钙、镁盐等, 有止血、制酸、收涩、敛疮作用; 川断有续筋骨、止血、止痛作用; 骨碎补有补肾、强筋骨、活血、止痛作用。冰片有开窍、活血、加强渗透性作用。本盖髓剂有止血、活血、开窍性能, 从而改善牙髓血运, 能去腐生新。经抑菌试验证实对深龋细菌有抑制作用, 牙髓病常常为龋病所致, 引起牙髓病的细菌无特异性⁽²⁾, 故对预防

或消除牙髓感染有一定作用。可能为牙髓外环境提供钙、磷离子, 则为牙齿硬组织的形成创造了有利条件⁽³⁾。药物的接筋续骨作用, 利于骨的愈合, 齿为骨之余, 同样利于牙齿硬组织的形成。

二、氢氧化钙是当前应用最广并经组织学确证有效的盖髓剂。直接盖髓术及活髓切断术的适应症为牙髓无感染或感染轻微的年轻患牙。我们用中药盖髓剂治疗 6 例意外穿髓牙外, 96 例牙均为牙髓炎患牙, 经 1 年以上观察成功率 82.4%。动物实验观察, 山羊牙直接盖髓 45 天有硬组织形成封闭穿髓孔, 而 Tronstad⁽⁴⁾用氢氧化钙制剂(Dycal)给猴牙直接盖髓, 82 天有完整牙本质桥形成。说明本盖髓剂在控制感染、保存生活牙髓、促进硬组织形成方面有较好的作用。

三、本盖髓剂为膜形条状, 胶囊盛之。与糊剂相比, 其优点为: (1)消毒严密, 无须用时调拌。(2)糊剂不成形, 上覆充填材料时易将糊剂从充填材料边缘挤出, 膜形制剂避免了此缺点。

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· 书 讯 ·

大型实用工具书《中药现代研究与临床应用》1993 年 8 月即将出版

汇集中药最新研究成果, 为新药研制开发提供最详实基础资料的大型实用工具书《中药现代研究与临床应用》即将出版。该书全面反映了常用中药各领域的研究成果, 对常用中药的化学成分、分析方法、药理作用、制剂学研究及炮制学研究、组织培养及现代临床应用逐项进行全面的论述, 并与美国权威文献检索机构进行计算机联网, 获得了大量国外研究中药的资料。全书共引用国内外论文超过 1 万篇, 仅人参就有 540 余篇, 书末附有化学成分名和化学结构式检索, 有很大的实用参考价值。并对广大的中医药工作者具有很大的参考意义。该书由中国中医研究院中药研究所、图书情报研究所等单位的数十名药学工作者协作编写。全书 200 万字, 定价 78 元, 邮购另加 10% 邮费。来信请寄中国中医研究院中药研究所阴健收, 邮政编码: 北京 100700。

Clinical and Experimental Studies on Membranous Pulp-Capping Agent with Chinese Medicinal Herbs

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A membranous pulp-capping agent of Chinese medicinal herbs was made by ourself prescription, and was filled in capsules for medication. Direct pulp-capping and pulpotomy were performed on 102 permanent teeth. During the observation period of more than one year, the successful rate was 82.4%. Under light microscope, the artificial exposed sites of normal sheep teeth were fully sealed after capping for 45 days. There were calcification under the exposed sites. The inner lines were preparative dentins. Experiments on dogs' teeth revealed that the pulps were normal after two month's direct pulp-capping, and the new dentins appeared. The bacteria culture test was made before and after the pulp-capping agent was used on ten deep carious teeth. It revealed that the bacteria all converted negative after medication of two weeks. Clinical and experimental studies indicated that the pulp-capping agent is valuable in clinical treatment.

Key words Chinese medicinal herb, pulpitis, pulp-capping, pulpotomy, antibacterial test

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Clinical Observation on Effect of Suo Quan Pill (缩泉丸) for Reducing Clozapine Induced Salivation

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40 Schizophrenic inpatients with clozapine induced salivation were divided into two groups randomly. They were treated with Suo Quan pill and a control study of the placebo (neutral pill) for reducing clozapine induced salivation. These cases were also classified by TCM Syndrome Differentiation and laboratory examinations were performed. Results: There was a significant difference in effect on salivation between the therapeutic group (21 cases) and the controlled group (19 cases), $P < 0.01$. According to their TCM subtypes two subtypes (Stagnation of Phlegm-Dampness and Yin Deficiency) showed the best results. No correlation between the peripheral clozapine level and salivation was found. No side effect was recorded.

Key words Suo Quan Pill, clozapine, salivation

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Effect of Wuzi Yanzong Liquid (五子衍宗液) on Hypothalamus, Monoamines, Sexual Hormones and Reproductivity in Male Rats

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About 100 male SD rats aged 2, 5, 10, 18 and 24 months (each age group for about 20 rats) were used in the antisenility experiment. The animals of each age group were further subdivided into two groups randomly: one group administered with Wuzi Yanzong Liquid (WYL) daily for 5 weeks, and the other group with normal saline. After treatment, plasma testosterone (T) and estradiol (E2), hypothalamus norepinephrine (NE), dopamine (DA) and serotonin (5-HT) levels were determined. In comparison with younger groups, the 18 and 24 months old rats administered with saline had markedly lowered plasma T, hypothalamus NE and DA levels, and elevated 5-HT, E2 levels and 5-HT/DA, E2/T ratios; while in the 18 and 24 months rats administered with WYL the above mentioned changes were much less remarkable. Since WYL only raised plasma T level in old rats