

对羟福林与 N-甲基酪胺治疗休克 53 例的临床观察

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内容提要 本文报道合成品对羟福林与 N-甲基酪胺治疗休克 53 例, 有效率 86.7%。本品质纯用量小, 升压明显, 无不良副作用, 但动物实验提示合成品在增加冠脉流量, 减少血管阻力指数方面不如枳实, 故认为合成品还不能完全代替枳实。枳实中的其他成分对治疗休克有益的药理作用还值得探讨。

1975 年我们报道应用枳实注射液治疗休克 94 例取得肯定而满意的疗效^①。但枳实天然产品之制剂有效成分含量不恒定, 而且制剂用量大, 影响抢救时输液计划。湖南医药工业研究所于 1977 年人工合成了枳实升压有效成分对羟福林与 N-甲基酪胺^②。从 1979 年 6 月~1982 年 12 月我们应用此合成品治疗各类休克 53 例, 现总结报道如下。

一般资料

一、年龄及性别: 男 34 例, 女 19 例。年龄自 15 岁~86 岁。

二、原发病的分布: 感染中毒性休克 29 例, 心源性休克 6 例, 过敏性休克 2 例, 失血性休克 1 例, 药物中毒 4 例, 脑血管意外 3 例, 其他原因引起休克 8 例。

三、休克程度: (1) 轻度休克: 收缩压 61~80mmHg。(2) 中度休克: 收缩压 40~60mmHg。(3) 重度休克: 收缩压在 40mmHg 以下或收缩压在 40mmHg 以上, 而无脉压, 肢端冰凉, 发绀, 全身情况差者。本组 53 例中属轻度者 14 例, 中度者 25 例, 重度者 14 例。

四、制剂及用法: 对羟福林(代号“311”)与 N-甲基酪胺(代号“417”)为湖南医药工业研究所提供, 按 1% 浓度配制静脉注射液, 每支 2ml, 含“311”“417”各 20mg。本组病例除针对休克病因及一般抗休克治疗(如输液, 纠正酸中毒, 部分病例应用激素)外, 均不经选择地应

用“311”“417”, 而不同时用其他血管活性物质。部分病例在应用“311”“417”之前, 曾用其他血管活性物质无效而改用“311”“417”。将“311”“417”按 1:1 配比采用, 静脉推注或滴注, 根据休克程度不同, 可取“311”“417”各 20~60mg 以生理盐水或葡萄糖液 10ml 稀释后静脉推注, 10~30 分钟观察血压反应。反应良好继以“311”“417”各 20~100mg/100ml 持续滴注(亦可单独立即采取滴注), 个别病人用到 150mg/100ml, 滴速视病情而定, 一般 30~40 滴/分, 如血压上升不满意, 可间隔 30 分钟推注 20mg, 候血压回升平稳, 面色、肢温、脉搏、尿量等恢复后逐渐撤除, 一般不宜骤然停药。

疗效观察

一、疗效标准: (1) 显效: 用“311”“417”后立即或 30 分钟左右, 收缩压上升至 90mmHg 以上, 脉压增大至 30~40mmHg, 心音增强, 脉搏有力, 肢端变暖, 尿量增加, 并且血压稳定 5 小时以上不再下降; (2) 短暂效果: 用“311”“417”后立即或 30 分钟左右收缩压有所上升, 但未达到 90mmHg, 或血压不稳定 5 小时以上者; (3) 无效: 用“311”“417”后血压及全身情况均无好转。

二、治疗结果: 静脉推注“311”“417”后, 有 68% 病例血压立即回升, 持续 10~30 分钟后又下降, 故需静脉滴注以维持血压。本组 53 例中显效者 36 例占 68%; 短暂效果者 10 例占

18.7%；无效者7例占13.3%。总有效率为86.7%。

三、影响疗效的因素分析

1. 休克的病因与疗效的关系：本组53例休克患者经用“311”“417”显效36例中，感染性休克19例，心源性休克5例，过敏性休克1例，药物中毒3例，脑血管意外2例，失血性休克1例，其他原因所致休克5例。说明“311”“417”对各种原因所致休克均有一定疗效，但因本组病例数尚少，未能分辨“311”“417”对何种病因所致之休克最为有效。

2. 休克的程度与疗效的关系：本组14例轻度休克患者经用“311”“417”后显效者12例占86%；25例中度休克患者显效者19例占76%；14例重度休克患者显效者5例占36%。轻、中度休克的显效率与重度休克的显效率相比，差别非常显著（ $P < 0.01$ ），说明“311”“417”抗休克的疗效与休克程度有关，对轻、中度休克的疗效最好。

3. 酸中毒与疗效的关系：本组53例中有39例作 CO_2CP 测定，其中无酸中毒和轻度酸中毒（ $\text{CO}_2\text{CP} > 30\text{vol}\%$ ）者26例，中度和重度酸中毒（ $\text{CO}_2\text{CP} < 30\text{vol}\%$ ）者13例。经用“311”“417”后前组病例显效22例占84.6%，后组显效5例占38.4%。两组的显效率相比有非常显著差别（ $P < 0.01$ ）。说明“311”“417”对无酸中毒和轻度酸中毒休克患者的疗效最好。

4. 无效病例分析：7例无效病例中，毒蛇咬伤严重休克病情垂危，病毒性脑炎并发脑疝，流行性出血热并颅内大出血，重症肝炎肝昏迷，肺心病慢性衰竭，重度有机磷农药中毒并肺水肿以及尿毒症高血钾，以上各1例，用“311”“417”无反应，改用多巴胺与阿拉明等综合措施也不凑效，终因病情垂危，重要脏器损害严重，抢救无效死亡。

四、副作用：本组53例使用“311”“417”注射液，推注最大剂量60mg/次，滴注最大浓度120mg/100ml，连续用药最长维持时间21天，均未发现有心律紊乱及其它不良副作用。有一例胃癌手术麻醉中休克患者静脉推注“311”

“417”各60mg，血压上升至200mmHg，在严密观察下，未发现心律紊乱及其它不良反应。有一例在用药过程中液体曾溢入皮下，未发现有局部组织坏死等改变。

讨 论

“311”“417”是从天然枳实注射液中分离出来的抗休克有效成分。“311”主要兴奋 α 受体，对心 β 受体也有一定兴奋作用，其升压主要是直接作用于肾上腺素能受体⁽³⁾。“417”升压为间接作用，与酪胺相似，是通过释放内源性交感介质起作用，它有显著增加冠脉流量，降低其血管阻力指数和明显利尿⁽³⁾。“311”“417”均能增强心肌收缩性能和泵血功能，导致升压，故能抗休克。

“311”“417”按1:1配比动物实验也表明与天然枳实注射液的药理作用基本相似。主要特点是升压明显，增加冠脉血流量，降低其阻力指数，明显利尿。本组68%病例尿量均明显增加。有一例休克型肺炎用“311”“417”之前24小时尿仅160ml，经静脉滴注“311”“417”（80mg/100ml）5小时，血压一直平稳在90~100/60mmHg，日尿量达3600ml。

“311”“417”制剂质纯，用量小，不影响输液计划，无不良副作用，抗休克疗效良好。但动物实验发现天然枳实注射液在血压升到峰值时，在增加冠脉血流量和减少血管阻力指数方面与“311”“417”（1:1）比较有显著差异，对肾血管阻力指数的减少也明显多于“311”“417”。故认为人工合成的“311”“417”的组合还不能完全代替天然枳实注射液。枳实中的其它成分参与抗休克的有益的药理作用，或者尚有其它药理作用，还值得进一步探讨。

参 考 文 献

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adults, and 25-30g for children. The herb was dissolved in water and boiled orally qd. The appetite of the patients was improved in 2-3 days after heavy dose treatment. The normal icteric index and transaminase were restored in 12.7 days and 16.4 days respectively. On average, the patients spent 19.7 days in the hospital. Generally, the patients could receive the treatment without dehydration and disturbance of electrolyte, except nausea and vomiting occurred in a few cases.

Pharmacological effects and the mechanism of *Rheum* in the treatment of acute icteric hepatitis were also studied. It is emphatically indicated that *Rheum* has manifested two entirely opposite effects, depending upon different parts of the smooth muscles of intestine. For instance, it has inhibitory effect on the small intestine, whereas it has stimulating effect on the colon. This helps explain why *Rheum* removes pathogenic factors without damaging normal functioning of the human body.

Since *Rheum* is a good purgative drugs, and has the function of preventing further loss of fluid as well as removing blood stasis to promote regeneration, it can be one of the medicines to deal with severe cases of hepatitis. (Original article on page 88)

TCM-WM Treatment of 356 Cases of Scrofula on the Neck and in the Axilla

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This paper presents the experience gained from TCM-WM treatment of 356 cases of scrofula (the abscess type and the ruptured-ulcer type) on the neck and in the axilla. It was by combining the general treatment with the local focus management that the patients with the symptoms of scrofula were treated. Or, to be more exact, we asked the patients to take Chinese medicine herbs; at the same time we coped with the local focus by way of debridement and dermal suture. Satisfactory results have been achieved. The short-term cure rate is 100%. On the average, it took 15.3 days to get every focus cured. The long-term recurrence rate of follow-up is 8.6%. (Original article on page 90)

Preliminary Observation on Clinical Curative Effects of Couch-Netting and Cryoextraction of Cataract

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The couch-netting of cataract is an operative treatment by means of combined TCM-WM. It has the following advantages: the incision is small, visual acuity can be better corrected, and the pupil can be maintained as round as possible. The thesis herein describes a comparative observation on clinical curative effects of couch-netting and cryoextraction (40 eyes each). The patients have been followed up regularly for more than one year.

Results: 7-14 days after the operation, there were 14 eyes (36.8%) in the group under couch-netting operation reaching 0.5 on the Snellen's test chart (corrected vision), while in the group under cryoextraction operation, only 3 eyes (10.0%) reached that standard. 1-2 years after the operation, 22 eyes (84.6%) in the group under couch-netting operation reached 0.9 on the Snellen's test chart, but only 9 eyes (34.6%) in the cryoextraction operation group reached that standard. There were remarkable differences between the two groups ($P < 0.05$).

During the couch-netting operation, the percentage of vitreous body loss (small amount) was relatively high (12 eyes, 30.0%), but the author never saw any other harmful effects brought in by the operation. It is frequently observed that the operated eyes suffered vitreous opacity after operation (15 eyes, 37.5%) because of blood streaks in the vitreous body, pigment iris, and broken cortices of lens. But these things will be absorbed as time goes on.

(Original article on page 93)

Clinical Observation on Synephrine and N-Methyltyramine in the Treatment of 53 Shock Cases

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This article reports the results of the effect of a synthetic compound (a mixture of synephrine and N-methyltyramine) in 53 shock cases. There are 36 cases (68%) with prominent effect; 10 cases (18.7%) with temporary effect and 7 cases (13.7%) in failure. Thus the total effective percentage of the treatment is 86.7%.

This kind of medicine is marked by the fact that the blood pressure increased conspicuously, the pulse pressure was great, and the quantity of the urine increased. As compared with the natural preparation (*Citrus Aurantium L.*), the compound has many features, such as pure in quality; small in dose and without side effects. But animal experiments showed that the synthetic compound was less effective than the natural preparation, especially with respect to the increase of coronary blood flow volume and the decrease of vessel resistance index. Thus, it is suggested that the artificial compound cannot entirely replace the natural preparation. The other beneficial action of the natural preparation to the shock cases is worth further investigating. (Original article on page 95)