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·临床研究·

# 耳穴贴敷法对灼口综合征患者心理状态及血浆β-内啡肽的影响

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**【摘要】　目的**　探讨耳穴贴敷法对灼口综合征患者心理状态及血浆β-内啡肽的影响。**方法**　105例灼口综合征（burning mouth syndrome，BMS）患者随机分为耳穴贴敷组50例，药物治疗组55例，疗程为1个月，耳穴贴敷组通过对BMS患者进行中医辨证，选取舌、心、神门3穴。使用王不留行籽进行贴敷，每次单耳贴敷时对双耳交替按压治疗，嘱患者每日按压治疗部位3次，每次1～2 min，至耳廓发红发热为止；药物对照组口服维生素E 100 mg+谷维素10 mg+维生素B2 10 mg，3次/d。分别于治疗前后评估患者疼痛感觉强度、精神及心理状态及检测血浆β-内啡肽的变化。**结果**　两组患者治疗后疼痛感觉强度均较治疗前下降（$P<0.001$）；耳穴贴敷组患者治疗后躯体化（$t=2.118$，$P=0.037$）、恐惧（$t=2.084$，$P=0.039$）及饮食睡眠（$t=2.047$，$P=0.043$）评分较治疗前有显著改善，且血浆β-内啡肽水平提高，差异具有统计学意义（$t=2.247$，$P=0.027$）。**结论**　耳穴贴敷法是一种有效的BMS治疗手段，可改善患者心理状态，促进血浆β-内啡肽的合成可能是其作用机制。

**【关键词】**　灼口综合征；　耳穴贴敷法；　β-内啡肽；　90项症状自评量表；　心理状态；　躯体化；　恐惧；　睡眠障碍

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**Effect of auricular point therapy on the psychological state and plasma β-endorphin level of patients with burning mouth syndrome**

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**【Abstract】　Objective**　To observe the clinical effects of auricular point therapy on burning mouth syndrome (BMS) and its effect on the psychological state of patients and plasma β-endorphin. **Methods**　A total of 105 patients diagnosed with BMS were randomly divided into an auricular acupoint application group (50 cases) and a drug treatment group (55 cases). The treatment course lasted one month. The patients in the auricular acupoint application group selected 3 points on their tongue, heart and Shenmen through traditional Chinese medical dialectics used for patients with BMS. Wangbuliu seeds were applied, two ears were pressed alternately and one ear was applied each time. The patient was instructed to press the treatment site three times a day, 1-2 min each time, until the auricle skin became reddish and hot. The patients in the drug treatment group took vitamin E 100 mg+oryzanol 10 mg+vitamin B2 10 mg orally three

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times a day. Before and after treatment, the pain intensity and mental and psychological state of the patients were evaluated. The patient's plasma was detected before and after β-endorphin treatment. **Results** The pain sensation intensity of the two groups decreased after treatment ($P < 0.001$). After treatment, the scores of somatization ($t = 2.118$, $P = 0.037$), fear ($t = 2.084$, $P = 0.039$) and diet and sleep ($t = 2.047$, $P = 0.043$) in the auricular acupoint application group were significantly improved compared with the level before treatment. The level of β-endorphin in plasma was increased, and the difference was statistically significant ($t = 2.247$, $P = 0.027$) in the auricular acupoint application group after treatment. **Conclusion** Auricular point therapy is an effective method for patients with BMS, improving psychological state and promoting the synthesis of plasma β-endorphin may be one of its mechanisms.

**【Key words】** burning mouth syndrome; auricular point therapy; β-endorphin; sympton checklist-90; psychological state; somatization; fear; sleep disorder

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灼口综合征(burning mouth syndrome, BMS)是临床常见的口腔黏膜疾病,也被称为舌灼痛、口腔黏膜感觉异常、舌痛症等,其特征是在没有明显临床损害和组织病理学变化的情况下,口腔黏膜出现烧灼样疼痛[1-3]。由于病因复杂,发病机制不明确,目前仍是临床治疗的难点,而以整体理念指导下辨证施治为特点的中医耳穴疗法在BMS治疗中独具优势[4-5]。本课题组前期研究已发现中医耳穴贴敷疗法可明显缓解BMS的疼痛症状,是一种简便安全有效的治疗手段[6]。本研究拟在前期研究基础上,进一步评估探讨耳穴贴敷法对患者疼痛感觉强度、精神心理状态及血浆β-内啡肽水平的影响。

## 1　资料和方法

### 1.1　病例选择

门诊选取中医辨证为心火炽盛型BMS患者105例,患者均已签署研究知情同意书,本研究已通过上海交通大学医学院附属第九人民医院医学伦理委员会审查(沪九院伦审2016-267-T202号)。将Scala等[7]提出BMS诊断标准与《口腔黏膜病学》[8]全国统编教材结合,制定本研究纳入标准:①舌部及口腔黏膜自觉出现烧灼样疼痛,该疼痛持续4个月以上;②患者喝水或者进食可以部分缓解疼痛;③该疼痛不影响睡眠;口腔黏膜无异常临床表现,应排除口腔黏膜和牙体牙髓、牙周等其他口腔疾病;④患者中医辨证选择心火炽盛型[9],患者临床主证:舌痛比较剧烈,以舌尖部灼痛为主,同时伴有口干灼热,情志不佳,失眠多梦,猜疑多虑,易怒心烦,舌苔黄燥,舌体偏红,小便赤热,大便干结,脉数有力。排除标准:①妊娠或哺乳期女性;②不能按时复诊,不遵医嘱用药;③肝肾功能检测异常者;④罹患严重全身系统性疾病或传染性疾病;罹患严重精神疾病者;⑤严重皮肤疾病或对贴敷药物过敏者;⑥在治疗期间,同时接受本治疗方案以外与本病相关的治疗措施者。

### 1.2　分组与治疗方案

入选患者随机分为耳穴贴敷治疗组和药物对照组,接受1个月的相应治疗。耳穴贴敷治疗组:50例BMS患者,通过对BMS患者进行中医辨证,选取舌、心、神门3穴。使用王不留行籽进行贴敷,每次单耳贴敷时对双耳交替按压治疗,嘱患者每日按压治疗部位3次,每次1~2 min,至耳廓发红发热为止;药物对照组:55例BMS患者,口服维生素E 100 mg+谷维素10 mg+维生素B2 10 mg,3次/d。

### 1.3　检测指标

两组患者分别于治疗前进行疼痛强度评分,并门诊留取血样(无需空腹)送检,治疗后1个月复诊再次检测疼痛感觉强度,留取血样(无需空腹)送检。

1.3.1　疼痛感觉强度评分　使用视觉模拟评分法(visual analogue scale, VAS)评估患者疼痛感觉强度。在一条长度为10 cm的标尺两端分别标记上无痛和最痛,1~10分依次代表疼痛等级,让患者在线段上指出最能代表其疼痛感觉程度的适当位置,以表示其疼痛感觉程度。

1.3.2　精神及心理状态评估　使用90项症状自评量表(symptom checklist-90,SCL-90)评估患者精神及心理状态。90项症状自评量表:包括90个不同问题,分为强迫症状、躯体化、抑郁、焦虑、人际关系敏感、偏执、恐惧、敌对、精神病性、其他(睡眠饮食等影响)10个因子计分,相关各项采取1~5分评分,单项因子分≥2分为阳性,分别计算各因子分、总分、阳性项目数,数据统计。

1.3.3　酶联免疫吸附法测定血浆β-内啡肽　试剂盒由上海科顺生物科技有限公司提供,酶联免疫吸附法检测患者血浆β内啡肽水平。

1.4　统计学分析

使用GraphPad Prism 5软件进行数据$t$检验分析。当$P<0.05$,认为差异有统计学意义。

## 2　结　果

2.1　疼痛感觉强度比较

耳穴贴敷组平均54.86岁,男女比例为13:37;药物治疗组平均为52.95岁,男女比例为18:37;两组年龄、性别比较差异无统计学意义。治疗前后两组间VAS分值均无显著性差异($P=0.355$、$P=0.306$),治疗1个月后两组VAS分值均下降,与治疗前相比有显著差异($P<0.001$),见表1。

2.2　精神及心理状态评估

耳穴贴敷组治疗一个月后,患者躯体化($t=2.118$,$P=0.037$)、恐惧($t=2.084$,$P=0.039$)及饮食睡眠($t=2.047$,$P=0.043$)等情况得到明显改善。而药物治疗组治疗一个月后患者各项因子分值虽有下降,但差异无统计学意义($P>0.05$)。治疗前后两组间SCL-90各项因子分值差异均无统计学意义,见表2。

2.3　血浆β-内啡肽变化

治疗前两组血浆β-内啡肽水平无显著差异($t=0.128$,$P=0.898$),治疗后两组血浆β-内啡肽水平均有上升,其中耳穴贴敷组β-内啡肽水平的提高更为显著,治疗前后差异有统计学意义($t=2.247$,$P=0.027$),但与药物组相比两组间无显著差异($t=0.458$,$P=0.648$),见表3。

**表1**　两组治疗前后患者VAS分值变化

Table 1　Changes in VAS scores before and after treatment in the two groups　$\bar{x}\pm s$

| Groups | Before treatment | After treatment | $t$ | $P$ |
|---|---|---|---|---|
| Auricular acupoint application group ($n=50$) | 4.29 ± 0.82 | 2.75 ± 1.07 | 8.949 | < 0.001 |
| Drug treatment group ($n=55$) | 4.48 ± 1.18 | 2.97 ± 1.04 | 10.520 | < 0.001 |
| $t$ | 0.929 | 1.029 | | |
| $P$ | 0.355 | 0.306 | | |

VAS: visual analogue scale

**表2**　两组治疗前后患者SCL-90量表分值变化

Table 2　Changes in SCL-90 scores before and after treatment in the two groups　$\bar{x}\pm s$

| Subscales | Auricular acupoint application group ($n=50$) | | $t$ | $P$ | Drug treatment group ($n=55$) | | $t$ | $P$ |
|---|---|---|---|---|---|---|---|---|
| | Before treatment | After treatment | | | Before treatment | After treatment | | |
| Somatization | 1.71 ± 0.80 | 1.47 ± 0.08 | 2.118 | 0.037 | 1.57 ± 0.07 | 1.48 ± 0.06 | 1.005 | 0.317 |
| Obsessive compulsive | 1.45 ± 0.06 | 1.36 ± 0.05 | 1.233 | 0.220 | 1.48 ± 0.05 | 1.43 ± 0.04 | 0.762 | 0.448 |
| Interpersonal sensitivity | 1.23 ± 0.03 | 1.17 ± 0.03 | 1.200 | 0.233 | 1.24 ± 0.03 | 1.21 ± 0.03 | 0.635 | 0.527 |
| Depression | 1.23 ± 0.04 | 1.17 ± 0.02 | 1.093 | 0.277 | 1.25 ± 0.03 | 1.20 ± 0.02 | 1.218 | 0.226 |
| Anxiety | 1.36 ± 0.04 | 1.29 ± 0.03 | 1.202 | 0.232 | 1.35 ± 0.03 | 1.28 ± 0.03 | 1.639 | 0.104 |
| Hostility | 1.15 ± 0.3 | 1.12 ± 0.02 | 0.969 | 0.335 | 1.22 ± 0.03 | 1.14 ± 0.03 | 1.645 | 0.103 |
| Phobic anxiety | 1.18 ± 0.04 | 1.09 ± 0.02 | 2.084 | 0.039 | 1.18 ± 0.03 | 1.12 ± 0.02 | 1.501 | 0.136 |
| Paranoid ideation | 1.16 ± 0.03 | 1.12 ± 0.02 | 1.182 | 0.240 | 1.18 ± 0.02 | 1.14 ± 0.03 | 1.048 | 0.297 |
| Psychoticism | 1.10 ± 0.02 | 1.08 ± 0.02 | 0.899 | 0.371 | 1.14 ± 0.02 | 1.11 ± 0.01 | 1.100 | 0.274 |
| Others (diet and sleep) | 1.67 ± 0.07 | 1.48 ± 0.06 | 2.047 | 0.043 | 1.55 ± 0.06 | 1.47 ± 0.06 | 0.9588 | 0.339 |
| Number of positive items | 21.08 ± 2.00 | 17.30 ± 1.96 | 1.349 | 0.181 | 22.15 ± 1.67 | 19.62 ± 1.66 | 0.280 | 0.779 |
| Total | 120.40 ± 3.30 | 112.20 ± 2.67 | 1.932 | 0.056 | 119.60 ± 2.46 | 114.40 ± 2.32 | 1.125 | 0.263 |

SCL-90: symptom checklist-90

表3　两组治疗前后患者血浆β-内啡肽水平变化

Table 3　Changes in plasma β- endorphin before and after treatment in the two groups　　$\bar{x} \pm s$, pg/mL

| Groups | Before treatment | After treatment | $t$ | $P$ |
|---|---|---|---|---|
| Auricular acupoint application group ($n$ = 50) | 7.21 ± 0.39 | 8.60 ± 5.48 | 2.247 | 0.027 |
| Drug treatment group ($n$ = 55) | 7.13 ± 0.45 | 8.31 ± 0.40 | 1.954 | 0.053 |
| $t$ | 0.128 | 0.458 | | |
| $P$ | 0.898 | 0.648 | | |

## 3　讨　论

BMS患者无明显临床损害和组织病理学变化，但常伴有明显的精神因素，与抑郁、焦虑、恐惧、疑病症等心理状态异常有关[10-12]。与其他慢性疼痛一样，BMS患者也常常伴有睡眠障碍，包括入睡困难、夜间醒来和睡眠质量差等[13]。目前尚不能明确这些心理和睡眠障碍是出现在BMS之前的诱因，还是BMS发生后出现的继发症状，但这些心理和睡眠障碍是BMS患者常见的症状[14-15]。

SCL-90是目前临床上使用最为广泛的心理疾病和精神障碍的检测量表，涉及情感、感觉、意识、思维、行为，以及生活习惯、人际关系、睡眠饮食等90个项目，因其测试容量大、可以准确反映患者自觉症状等特点，对于有可能处于心理障碍或心理障碍边缘的患者具有较高的甄别能力[16]。

中医辨证认为，心火炽盛型BMS患者心火上炎耗伤心阴，心神无所附，所以会失眠心烦易怒。耳针心穴，神门穴和舌穴，除了可活血化瘀，还有止痛镇静安神之功效。本研究发现，耳穴敷贴法治疗1个月后BMS患者的口腔灼痛症状比药物治疗组有明显改善，患者躯体化、恐怖及饮食睡眠等SCL-90因子评分显著降低。躯体化因子主要反映受试者主观上的躯体不适感，包括胃肠道消化系统、心血管系统、呼吸系统等的主述不适，以及背痛、头痛、肌肉酸痛和各种心理不适引发的躯体表现，而恐惧因子则主要反映人群恐怖及社交恐怖。耳穴敷贴法治疗1个月后患者躯体化症状明显好转，本研究结果提示耳穴敷贴法治疗BMS可能通过改善情绪心理状态，镇静安神，从而缓解患者症状。

疼痛是一种复杂的主观感受，而疼痛的评估则是疼痛治疗的第一步，并贯穿于疼痛治疗的始终，是疼痛性疾病疗效判断体系的基本。VAS量表是临床疼痛评估的最常用的方法，已被广泛用于对疼痛严重程度的评价，并已在临床研究中得到充分的验证。但BMS患者疼痛发作有些是间歇性阵发性，有些是持续性，有时两者共存，评价时间点的选择会影响评分结果。β-内啡肽为垂体所分泌的生物化学型合成物激素，具有类吗啡样作用，能与吗啡样受体结合，产生与吗啡样的欣快感，具有较强的镇痛作用，是一种天然的镇痛剂[17-18]。临床研究发现，肿瘤患者、痛经患者、免疫力低下的患者体内，以及具有疼痛症状的患者体内血浆β-内啡肽含量会减少，特别是有疼痛症状的患者血浆中减少更为明显[19-21]。血浆β-内啡肽变化已作为疼痛评估的辅助方法之一[22-24]。本研究发现治疗前两组血浆β-内啡肽水平无差异，治疗后两组血浆β-内啡肽水平均有上升，其中耳穴贴敷组β-内啡肽水平的提高更为显著。

目前中医耳穴敷贴法治疗多从症状出发，以临床经验为主，缺乏统一的辩证标准和疗效评价标准等，可重复性差，影响了耳穴敷贴法的交流和推广，因此亟须更大样本、更长随访时间、多中心和随机、双盲、安慰剂对照的临床研究。同时，也需要建立更加客观化和标准化的中西医结合治疗BMS的疗效评价体系。

**【Author contributions】** Lou JN processed the research and wrote the article. Zhou HW designed the study and revised the article. Ge SY designed the study and revised the article. All authors read and approved the final manuscript as submitted.

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