4 Opie L H. Angiotensin converting enzyme inhibitors: Scientific basis for clinical use. Author's Publishing. House New York, 1992: 169
5 Sihm I, Schroeder A P, Aalkjoare *et al*. Normalization of media to lumen ratio of human subcutaneous arteries during antihypertensive treatment with a perindopril based regimen. Eur Heart J, 1993; 14(Suppl): 63
6 Levy B I, Michel J B, Salzmann J L *et al*. Arterial effects of ACE inhibitor in renovascular and spontaneously hypertensive rats. J Hypertens, 1988; 6(Suppl 3): S23
7 Asmar R G, Journo H J, Laiolley P J *et al*. Treatment for one year with perindopril effect on cardial mass and arterial compliance in essential hypertension. J Hypertens, 1988; 6(Suppl 3): S33
8 Michel J B, Cattion A L, Sulzmann J L *et al*. Hormonal and cardial effects of converting enzyme inhibition in rat myocardial infarction. Cire Res, 1988; 62(4): 641

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Therapeutic effects of perindopril on congestive heart failure

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Abstract Objective: To investigate the therapeutic effects of perindopril on congestive heart failure (CHF) and its possible mechanism. Methods: 40 patients (20 males, 20 females) with the age ranging from 21 to 77 years old (mean= 51.47) were randomized into the control group (n = 17) treated with digitalis and diuretics and the treatment group (n = 23) treated with perindopril, digitalis and diuretics. Then the changes of the following indices were observed 1) NYHA class; 2) hemodynamics and cardiac performance such as FS, EF, CI, CO and SV; 3) VST, LVID, LVPWT and LV mass; 4) plasma ANF, ANGII, Ald, ET, ACE and PRA. Results: In the treatment group, it was found that: 1) NYHA class was ameliorated; 2) the cardiac performance and hemodynamics were improved; 3) the blood RAAS was inhibited; 4) the synthesis of ANF and discharge of ET were significantly decreased. Conclusion: Perindopril is an effective agent in the treatment of CHF. Its mechanism might be to decrease the synthesis of ANF and discharge of ET besides inhibiting RAAS

Key words perindopril; congestive heart failure (CHF); renin-angiotensin-asdsterone system (RAAS)

培养黑素细胞生物学鉴定方法及选择

The method and choice of identification on biological cultivated melanocytes

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皮肤色素障碍性疾病主要与皮肤黑素系统中的黑素细胞(MC)有关。应用细胞培养技术[1]建立 MC的体外纯培养,是研究皮肤色素障碍性疾病的重要手段。有较多方法可对体外培养的 MC进行生物学鉴定,现介绍常用的几种。

1 方法介绍

1.1 Masson-Fontana氨银法

培养 MC用 10% 甲醛固定后蒸馏水洗;室温下置入氨银液中浸染 12 h~ 18 h,蒸馏水洗;用 0.2% 氯化金水溶液增色 10 min,蒸馏水洗;用 5% 硫代硫酸钠水溶液固定 2 min,蒸馏水洗。细胞内黑素颗粒呈黑色。

1.2 DOPA染色法

将培养的 MC转种于 96孔塑料培养板内,待细胞贴壁后用 5% 甲醛固定细胞 30 min,双蒸水漂洗 3次;加入适量 0.1% 左旋多巴, 37℃孵育 4 h~ 5 h,双蒸水洗;再用 10% 甲醛固定 10 min~ 20 min后,双蒸水洗。DOPA阳性者呈黑色。照相。

1.3 免疫组化法

培养 MC经 4% 多聚甲醛固定后,一抗选用 S-100蛋白或抗 HMSA-5单抗按 SP法或 ABC法操作步骤进行染色。

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Early diagnosis of hemorrhagic cerebrovascular diseases by lateral cervical puncture obtaining cerebrospinal fluid

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Abstract Objective: The clinical significance of the comparative examination of the cerebrospinal fluid (CSF) withdrawn from the neck and waist in cases of internal hemorrhagic cerebrovascular diseases was studied. Methods: In 52 cases of internal hemorrhagic cerebrovascular diseases, the CSF was withdrawn at the neck and waist to determine its pressure, color and RBS counts and the statistical analysis was conducted. Results: Significant differences were found between the CSF withdrawn at the neck and that at the waist in its pressure, color and RBC counts. Conclusion: The examination of CSF withdrawn at the neck is better than that at the waist in diagnosing light intracerebral hemorrhage and for early diagnosis of intracranial diseases.

Key words cervical puncture; cerebrospinal fluid; hemorrhagic cerebrovascular disease

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1.4 培养细胞电镜观察

培养细胞悬液,置微量离心管内 1 500 r/min离心 10 min,弃上清,缓慢加入 3% 戊二醛 3 ml固定,制备透射电镜切片进行电镜观察。MC内可观察到不同期的黑素小体。

2 讨论

目前对 MC进行鉴定的方法可归纳为:黑色素确定法、酪氨酸酶活性显示法和免疫组化法。常用的几种方法的优缺点可大致概括如下:

(1) Masson-Fontana氨银法:是利用黑色素具有亲银特性,氨银液有还原为金属银的能力,用氨银液浸染,可使黑色素呈黑色。

(2) DOPA染色:DOPA可使有形成黑色素能力的 MC呈阳性反应,而对不形成黑色素的细胞则为阴性,该法实际上是证实酪氨酸酶的活性存在。在表皮细胞中,只有一种 DOPA氧化酶阳性细胞,即位于表皮基底细胞之间的黑素细胞[2]。DOPA染色是鉴定黑素细胞的一种较好的方法。

(3)免疫组化法:① S-100单抗:S-100蛋白是从牛脑中分离出的一种高度酸性钙蛋白,在起源于神经嵴的细胞和肿瘤中有广泛的分布[3]。② 抗 HMSA-5单抗:是加拿大 Alberta学院皮肤科用新生儿包皮体外培养正常 MC,再分离出细胞中的黑素小体,进一步研制出的鼠抗人单抗(IgG1)[4]。人正常 MC、痣细胞及恶性黑色素瘤有 HMSA-5的表达,而在表皮中含有黑素颗粒的角朊细胞和真皮中的噬黑素细胞则未发现有 HMSA-5,因此抗 HMSA-5单抗是应用免疫组化方法进行 MC鉴定极其有用的手段。

(4)电镜观察:能够直接从形态上确定培养细胞是否具有 MC的结构特征。

我们选用 DOPA染色和抗 HMSA-5单抗 SP法染色,对培养细胞进行鉴定能获得比较满意的阳性结果。经这两种方法鉴定后的同批培养细胞,再用透射电镜进行观察,同样发现了 MC的多种超微结构特征。这两种方法操作较简单,费时少,是鉴定培养黑素细胞较为可靠的方法。

关键词　黑素细胞;细胞;培养的

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参考文献

1 Eisinger M & Marko O. Selective proliferation of normal human melanocytes *in vitro* in the presence of phorbol ester and cholera toxin. Proc Natl Acad Sci USA 1982; (79): 2018~2022

2 崔　建,沈丽玉,王光超.正常人皮肤黑色素细胞分布的观察.中华皮肤科杂志,1989; 22(2 78)

3 蔡文琴,王伯云主编.实用免疫细胞化学与核酸分子杂交技术.成都:四川科学技术出版社,1994: 232

4 Der J E. A murine monoclonal antibody, Mo Ab HMSA-5, against a melanosomal component highly expressed in early stages, and common to normal and neoplastic melanocytes. Br J Cancer, 1993; (67): 47~57

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