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Experimental observation on medicinal prevention and treatment of hypoxic right ventricular hypertrophy

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Abstract The purpose of this study is to determine how long a duration of intermittent hypoxia is essential to result in strutural and functional changes of the heart and to assess the preventive and therapeutic efficiency of drugs on hypoxic right ventricular hypertrophy.

It was found that 30-day chronic hypoxia could induce an increase of the systolic pressure and dp/dtmax of the right ventricale, the number of perpheral erythrocytes, the myocardial blood flow of both the right and left ventricles and the weight index of the right ventricle, but no change of the function and weight index of the left ventricle was observed simultaneously. In addition, an increase of myocardial mitochondria in number, degeneration of myocardial fibrils and swelling of capillary endothelial cells were found in the period of chronic hypoxia. When chronic hyp-oxia was prolonged to 60 days or more, no further increase of the systolic pressure and weight index of the right ventricle was seen. These findings suggest that 30-day intermittent chronic hypoxia can induce a stable hypertrophy of the right ventricle.

Besides, prazosin and captoril could prevent right ventricular hypertrophy, and nitrendipine could prevent and treat hypoxic right ventricular hypertrophy and improve the ultrastructural changes of the myocardium.

Key words anoxia; heart enlargement; nitrendipine; prazosin

个案与短篇

输血引起抗-E 抗体缓慢升高一例

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同种抗体抗-E,在疑难配血中属于最常见。但抗-E 效价不断升高尚未见报道。我们遇到一例,现报道如下。

1 病例介绍

患者鹿某,男 54 岁,住院号 30614,患者从 1979～1989 年,因肝硬化,食道下段静脉曲张,上消化道大出血,5 次住院治疗。输血 7550ml,讯问病史均无输血不良反应。1990 年 8 月 29 日再次入院。木瓜酶配血时主侧出现凝集。

2 血清学检查

2.1 血型:B CCDee

2.2 直接抗人球蛋白试验阴性。

2.3 抗体鉴定,鹿某血清同谱细胞鉴定结果(表 1)。

表 1 鹿某血清同谱细胞反应结果

方 法	谱细胞					自身对照
	C$\bar{c}$DE	$\bar{c}\bar{c}$DE	CCDee	$\bar{c}\bar{c}$Dee	$\bar{c}\bar{c}$ddee	
木 瓜 酶	4+^{w}	3+	−	−	−	−
抗人球蛋白	3+	2+	−	−	−	−

(下转 404 页)

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Ultrastructural study on 37 cases of brain glioma

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Abstract Thirty-seven cases of brain glioma, confirmed by light microscopy and immunohistochemistry were studied with transmission electron microscopy. It was found that there were certain ultrastructural features for each type and each grade of glioma. In astrocytoma, there was certain amount of glial filaments in the tumor cells; Rosenthal fibers consisted of irregular osmiophilic masses surrounded with glial filaments; occasionally cytoplasmic annulate lamellae and intranuclear filaments could be seen; and the interstitial capillaries were characteristic. In typical oligodendroglioma, astrocytic processes containing glial filaments were quite present in different amounts.

These findings suggest that observation on the ultrastructure of gliomas is of significance to establish the diagnosis, to assess the degree of differentiation, and to identify some rare structures which can reveal the essence of the tumor. In addition, ultrastructural observation is helpful for prognosis.

Key words glioma/UL; microscopy, electron, transmission

（上接 399 页）

2.4 吸收释试验，将鹿某血清加等量O型RhCcDE，$\overline{cc}$DE 细胞吸收，37℃ 1 h，去上清，用三氯甲烷，三氯乙烯法放散，放散液同 $\overline{cc}$DE 发生凝集，同CCDee，$\overline{cc}$ddee 不凝集。

2.5 抗体效价滴定，取鹿某血清倍比稀释后加CcDE，$\overline{cc}$DE 细胞混合。木瓜酶法测效价，不同日期结果见表 2。

表 2 不同时间抗体效价滴定结果

时 间	抗体效价							效价	评分
	原液	2	4	8	16	32	64		
1990 年 8 月 29 日	3+	2+	2+	−	−	−	−	4	26
1992 年 1 月 5 日	4+	3+	3+	3+	+	−	−	16	47
1992 年 3 月 13 日	4+	4+	4+	4+	3+	1+	±	32	63
1992 年 4 月 2 日	4+	4+	4+	4+	3+	2+	1+	64	71

3 讨论

Rh 血型中国汉族人分布 CCDee 42.7% CcDE 34.91%，$\overline{cc}$DE 11.99%[1]因此抗-E 抗体在输血反应中较常见，该患者在 1990 年 8 月以前共输血 7 550ml，每次输血均无不良反应。从 1990 年 8 月 29 日木瓜酶出现凝集到 1992 年 3 月共住院 3 次。输血 4 800ml，患者效价逐渐上升趋势，见表 2。所输血均经木瓜酶配血相合。为防止差错，我们将所输 4 800ml，16 单位血的 E 抗原重测一次，E 抗原均为阴性。可排除抗原再次刺激引起回忆反应，导致抗体效价升高。每次输血均无反应。此例 1990 年 8 月以后所输血不含 E 抗原。但抗-E 效价逐渐升高持续到 1992 年 4 月。若系 1990 年 8 月以前输血所致，则抗-E 效价升高则相当迟缓，是否因为输同种异体血可导致抗体特异性和非特异性免疫同时增高所致。有待于观察更多的病例。

关键词 同种抗体；血型

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