duces Na^+-dependent glucose transport in rat small intestine. Diabetes, 1993, 42(8): 11226
6 Malabau U H, Dryden S, Mccarthy H D, *et al*. Effect of chronic vanadate administration in the STZ-induced diabetic rat. Diabetes, 1994, 43(1): 9
7 Meyerovitch J, Rothenberg P, Shechter Y, *et al*. Impaired insulin action but normalizes blood glucose level in streptozoticin-treated rats. J Biol Chem, 1987, 262(14): 6658
8 Bloodel O, Simon J, Chevalier B, *et al*. Impaired insulin action but normal insulin receptor activity in diabetic rat liver: effect of vanadate. Am J Physiol, 1990, 258(3): E459
9 Tamura S, Brown T A, Whipple J H, *et al*. A novel mechanism for the insulin like effect of vanadate on glycogen synthesis in rats adipocytes. J Biol Chem, 1984, 259(10): 6650
10 Challiss R A, Leighton B, Lozeman F J, *et al*. Effects of chronic administration of vanadate to the rat on the sensitivity of glycolysis and glycogen sythesis in skeletal muscle to insulin. Biochem Pharmacol, 1987, 36(3): 357
11 Venkatesan N, Avidan A, Davidson M B. Anti-diabetic action of vanadyl in rats in dependent of *in vivo* insulin-receptor kinase activity. Diabetes, 1991, 40(4): 492

(收稿: 1998-01-21;修回: 1998-09-28)
(编辑 冯崇英)

Effects of Vanadate on TPK activity of insulin receptor on cell membrane of the skeletal muscle after severe scalding in rats

Chen Bin, Xu Linshui, Wu Xigui (Department of Biochemistry, Third Military Medical University, Chongqing, 400038)

Abstract Objective: To explore the mechanism of vanadate in improving the insulin resistance and glucose metabolism disorder after severe scalding in rats. Methods: To observe the changes in plasma glucose level, plasma insulin level, insulin receptor (IR) binding property and its tyrosine protein kinase (IR-TPK) activity. After the rats with 30% TBSA full-thickness skin burns were fed with vanadate. Results: Vanadate significantly decreased the plasma glucose level. There were no changes in plasma insulin level and the maximum binding capacity and rate of insulin receptor on the cell membrane of the skeletal muscle. However, the IR-TPK activity was significantly enhanced. Conclusion: Vanadate can promote the sensitivity of target tissue to insulin by increasing IR-TPK activity without induction of IR.

Key words scalding; Vanadate; insulin receptor; tyrosine protein kinase

脑电监测在急性海洛因中毒患者救治中的应用

Application of EEG monitored in patients with acute toxicity of herroin

王惠玉* 方勇飞 (第三军医大学附属西南医院神经内科) 重庆, 400038

例 1男, 24岁于 1996年 5月 1日 22时自行 im 0.2 g海洛因, 约 10 min后诉头昏即进入深睡状。 5月 2日清晨其家人发现脉搏几乎摸不到才送我院就诊。 体检: 心率 70~ 80次 /min, 呼吸 8~ 10次 /min, 血压测不出。 脑电监测: 基本节律为 4~ 6 Hz 40~ 100μV波, 其中散在少量 8~ 9 Hz 30~ 50μV a波, 结论: 中度异常。 经对症治疗 2 d后复查脑电监测: 基本节律为 9~ 10 Hzα波, 各区较多散在 5~ 7 Hz中幅θ波。 结论: 轻至中度异常。 较首次监测有好转, 继续治疗 3 d后出院。

例 2女, 21岁。 于 196年 5月 9日 20时自行 im海洛因 0.2 g, 约 15 min后出现头痛即进入深睡状。 第 2天 18时家人发现其尿失禁即送当地医院治疗 4 d, 病情无好转于 5月 18日入我院。 体检: 深昏迷状, 潮式呼吸 26次 /min, 心率 120次 /min。 脑电监测: 各区为弥漫 1~ 3 Hz 30~ 100μVδ波, 其间稍多 4~ 7 Hz 20~ 70μVθ波。 结论: 重度异常。 经对症治疗 4 d后病情无好转, 脑电监测亦无改善。 继续治疗 10 d无好转死亡, 家人提供其有吸食海洛因 2年史。

例 3女, 24岁。 1996年 8月 27日晚 23时自行 im海洛因 0.2 g后 10 min感头痛即入睡。 第 2日晨 9时家人因对其呼之不应而送入我院。 体检: 心率 100次 /min, 呼吸血压正常。 脑电监测: 基本节律为低幅快波, 各区散在较多 3 Hz中幅 δ波及 4~ 6 Hz 150μVθ波。 结论: 轻至中度异常。 继续治疗 10 d后出院。

(下转 33页)

* 王惠玉, 女, 43岁, 副主任技师

?1994-2016 China Academic Journal Electronic Publishing House. All rights reserved. http://www.cnki.net

从另一方面反映了肿瘤细胞的增殖状态。少数细胞核内出现 TrfR的原因尚待进一步研究。

参考文献

1 Prior R, Fillet G, Gautan S, *et al*. Transferrin receptor expression in tumor of the human nervous system: relation to tumor type, grading and tumor growth fraction. Virchows Arch A, 1990, 416(3): 491

2 Page D L. Cancer risk assesment in benign breast biopsies. Human Pathol, 1986, 17(5): 871

3 李树玲.乳腺癌.中华人民共和国卫生部医政司编.中国常见恶性肿瘤诊治规范(第八分册).北京: 北京医科大学中国协和医科大学联合出版社, 1991. 25~29

4 Newman R, Vernon K, Habil M, *et al*. The transferrin receptor. Trends Biochem Sci, 1982, 7(8): 397

5 Shionoya K. The study of relationship between proliferative activity and expressed transferrin receptor content in cancer cells. Kokubyo Gakkai Zasshi, 1994, 61(4): 580

6 Whitney J F, Clark J M, Griffin T W, *et al*. Transferrin receptor expression in nonsmall cell lung cancer. Histopathologic and clinical correlates. Cancer, 1995, 176(1): 20

7 Dowlati A, Loo M, Bury T, *et al*. Soluble and cell-associated transferrin receptor in lung cancer. Br J Cancer, 1997, 75(12): 1802

(收稿: 1998-01-13;修回: 1998-10-27)

(编辑　张大春)

Significance of expression of transferrin receptor in tissue of atypical hyperplasia of the mammary gland and breast cancer

Liao Kelong, Guo Zhongqi (Department of Cardiothoracic Surgery, Southwest Hospital, Third Military Medical University, Chongqing, 400038)

Abstract Objective: To explore the significance of expression of transferrin receptor (TrfR) in tissue of atypical hyperplasia of the mammary gland and breast cancer. Methods: ABC immunohistochemistry was used. Results: ① The positive rates of the expression of TrfR in the tissue of cystic hyperplasia of the mammary gland with atypical hyperplasia grades Ⅰ, Ⅱ and Ⅲ and breast cancer with histological differentiation grades Ⅰ, Ⅱ and Ⅲ were 8.3%, 23.1%, 30.0%, 35.7%, 66.7% and 78.6% respectively. ② In tissue of breast cancer, the positive rates of TrfR expression were not related to the types of histological classification of the tumor. However, they were significantly correlated to the differentiation grades of the tumor. Conclusion: TrfR expression is an important index of reference to clinical surveillance of the precancerous lesions of the mammary gland.

Key words mammary gland; breast cancer; transferrin receptor; immunohistochemistry

(上接 30页)

讨论

海洛因对人体中枢神经系统的毒性作用是肯定的,它可引起呼吸衰竭至脑缺血缺氧最终至脑神经细胞代谢异常而昏迷,死亡[1]。

在用海洛因剂量及给药途径一致的前提下,脑电活动的异常程度与患者中毒后时间长短有平行关系,即中毒时间愈长,脑的损害愈重,治愈的可能性越小[2]。例 1例 3分别于注射海洛因后 7 h及 10 h入院,经及时救治,分别于第 3天和第 2天苏醒。而例 2由于注射海洛因 20余 h后才入院治疗,除临床症状无改善外,脑电监测也示脑实质的损害在进行加重,最终死亡。

急性海洛因中毒后,临床症状的好转与脑生理的改善并非完全同步,脑机能的恢复要慢于临床症状的改善[3]。

脑电监测对急性海洛因中毒后脑机能的改变实为一种客观,无创,可靠的辅助诊断指标。因其能判定脑受损后的范围及程度,故可为临床提供据中毒程度的轻重能否治愈和有无救治意义这一客观资料。

关键词　脑电监测;海洛因中毒

中图法分类号　R749.61

参考文献

1 刘助国,陆苏南.滥用阿片类药物对人体的毒性作用.中国药物滥用防治杂志, 1997, 25(5): 14

2 叶兰仙,周培兰,王有慧. 50例阿片依赖者脑电图分析.中国药物依赖性通报, 1996, 76(10): 69

3 黄远桂.中枢神经系统中毒脑电图.临床脑电图学.第 2版.西安: 陕西科学技术出版社, 1991. 116~117

(收稿: 1998-05-04;修回: 1998-12-04)

(编辑　王　红)

?1994-2016 China Academic Journal Electronic Publishing House. All rights reserved.　http://www.cnki.net