DOI:10.16016/j.1000-5404.1996.03.011
第18卷第3期 第三军医大学学报 Vol, 18, No. 3
1996年6月 ACTA ACADEMIAE MEDICINAE MILITARIS TERTIAE Jun. 1996

Changes of cell cycle and DNA content in bone marrow stromal cells after radiation injury in mice

Cheng Xinghua, Luo Chengji, Guo Chaohua, Wang Qingyu, Liu Lin, Peng Xiangui (Department of Radiation Medicine, Third Military Medical University, Chongqing, 630038)
Chen Zhaozhen, Li Caian (Department of Elementary Education, Third Military Medical University, Chongqing, 630038)

Abstract The changes of CFU-F, cell cycle and DNA content of the bone marrow stromal cells were observed in mice 3 and 7 d after the animals were irradiated with 5.0 Gy gamma rays from a ^{60}Co sourse. The samples of bone marrow were cultrued for 14 and 21 d and examined with FACS can flow cytometry using Lysis II software. It was found that the bone marrow stromal cells could still grow and adhere to the wall of the cultrue bottle but the number of CFU-F was significantly decreased. The number of CFU-F was increased in certain extent on the 7th day after irradiation but the recovery was rather sluggish. Prolongation of the culture time revealed that the proliferation of the irradiated bone marrow stromal cells was suppressed. Flow cytometric examination revealed that G_2+M cell ratio and DNA content of the irradiated bone marrow stromal cells were significantly lower than those of the normal control. When the culture was prolonged, the S cell ratio, G_2+M cell ratio and DNA content were gradually increased but they were still lower than those of the normal control. These findings indicate that hematopoiesis of bone marrow stromal cells is especially sensitive to radiation injury and takes a long time to restore its normal level.

Key words stromal cells; bone marrow; radiation injury; cell cycle; DNA content; mouse

青光眼自发性角膜破裂一例

Report of a case of spontaneous rupture of cornea with glaucoma

何春燕 王 一 (第三军医大学附属西南医院眼科) 重庆,630038

1 病例介绍

患者,女,69岁。因"头痛、左眼胀1 h,左眼球出血及内容物脱出30 min"入院。患者左眼为青光眼绝对期3月。既往有冠心病史。

查体:生命体征平稳。心率38～42 次/min。眼部检查:左眼无光感,眼睑肿胀,结膜充血水肿。角膜混浊,中央破裂,眼内容物及血凝块嵌顿于裂口中,将裂口挣开6 mm×7 mm,眼压T_{-2}。眼内结构窥视不清。心电图示Ⅰ度房室传导阻滞。胸透未见异常。

于1995年1月16日由心内科协助安置体外临时起搏器后,在心电监护下施行了"左眼球摘除术"。病人术后康复出院。摘除的眼球送病理检查,其报告为:镜检见角膜破裂,裂口不规则,裂口及眼内充满大量出血组织。脉络膜、视网膜脱落。视神经萎缩。考虑左眼球外伤性破裂。

2 讨论

青光眼绝对期时,巩膜出现葡萄肿,严重时在外力影响下可发生眼球破裂[1]。巩膜葡萄肿常见于:①前葡萄肿:可分为睫状体葡萄肿和间插葡萄肿,位于睫状体附近。②赤道部葡萄肿:发生于涡静脉穿出巩膜处。③后葡萄肿:常见于视神经乳头周围及后极部。前两种多见于慢性充血性青光眼和绝对期青光眼,后一种多为高度近视眼[2]。本例病人1994年7月因"左眼胀,视力下降"在我院门诊就诊,诊断为"左眼慢性闭角性青光眼(近绝对期)"。眼压:右眼1.36 kPa,左眼9.21 kPa。予降眼压药物治疗无效。10月左眼失明。以后仅在左眼胀时点降眼压药物治疗。门诊检查从未发现左眼角膜葡萄肿、角膜外伤及其他病理改变。也未见有巩膜葡萄肿。但患者眼压一直偏高。在这种情况下,左眼角膜发生自发性破裂,实属罕见,迄今未见文献报道。在长期高眼压作用下,角膜水肿,板层间隙扩大,固定细胞变性,抵抗力减弱。当眼压增高达一定程度时,则在角膜最薄弱的中央发生破裂。该病例说明青光眼眼球破裂不仅见于角膜巩膜葡萄肿处,也可见于无外因的角膜自发性破裂。

关键词 青光眼;并发症;角膜损伤
中图法分类号 R775

参考文献

1 李美玉. 原发性青光眼. 见:刘家琦,李凤鸣主编. 实用眼科学. 北京:人民卫生出版社,1992:354～381
2 马世英. 巩膜扩张和巩膜葡萄肿. 见:杨 钧主编. 现代眼科手册. 北京:人民卫生出版社,1993:365～366

(收稿:1995-09-02;修回:1996-03-27)
(编辑 张大春)

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