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Effects of glucocorticoid on interleukin 5 mRNA expression and eosinophil infiltration in the lung tissue of asthmatic guinea pigs

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Abstract Objective: To explore the relationship between interleukin 5 (IL-5) mRNA expression and eosinophil (Eos) infiltration in the lung tissue of asthmatic guinea pigs and the effects of glucocorticoid on it. Methods: Guinea pigs were randomized into the control group (CG), asthmatic group (AG) and dexamethasone-pretreated group (DPG). The animals in AG were sensitized by exposure to aerosolized ovalbumin to establish the model of asthma and those in DPG were treated likewise except for intraperitoneal injection of dexamethasone 6 h before the exposure. Twenty-four hours later, the counts of total Eos, hypodense eisinophil (HEo) and normal dense eosinophil (NEo) in the bronchoalveolar lavage (BALF) were measured. The changes in the percentage of HEo and NEo, IL-5 mRNA in situ expression and the effects of dexamethasone on them were determined. Results: ① The counts of total Eos and the percentage of HEo in BALF and IL-5 mRNA expression in the lung tissue in AG were significantly increased ($P < 0.01$) as compared with CG. ② The three parameters in DPG were significantly reduced in DPG as compared with AG ($P < 0.01$). ③ IL-5 mRNA expression was significantly correlated with the counts of total Eos ($r = 0.688$, $P < 0.01$) and percentage of HEo ($r = 0.582$, $P < 0.01$) in BALF. Conclusion: The enhancement of IL-5 mRNA in the lung tissue is closely associated with the increase in total counts of Eos. Inhibition of IL-5 mRNA expression in the lung tissue might be one of the important mechanisms of using glucocorticoid to reduce infiltration of Eos in the lung tissue to treat asthma.

Key words asthma; eosinophil; interleukin 5; *in situ* hybridization; dexamethasone; guinea pig

个案与短篇

青少年淋巴瘤 28例临床分析

A clinical analysis of 28 teenagers lymphoma patients

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我院自 1986~ 1996年收治了 28例青少年淋巴瘤患者,其临床特点及治疗效果观察报告如下。

1 临床资料

男 23例,女 5例,年龄 13~ 25岁,中位年龄 21岁,平均年龄 20.5岁。

临床特点: 28例患者中,26例以浅表淋巴结无痛性肿大为主要症状; 2例以胸腔积液、呼吸困难首诊,浅表淋巴结不大,X线片示"纵膈淋巴瘤",予联合化疗有效。全部患者中,14例有肝、脾肿大; 23例有低热、盗汗消瘦等全身症状; 16例伴不同程度胸腔和 或腹腔积液; 4例有颅内浸润: 脑背液压力增高,离心涂片染色发现淋巴肉瘤细胞; 3例有椎骨浸润: 表现为骨痛,其中 1例发展为截瘫; 4例有骨髓浸润,淋巴肉瘤细胞 3.0%~ 29.5%; 1例扁桃腺浸润; 1例骨髓纤维化。根据 Arbor分期法[1],I ~ II 期患者 5例,占 17.86%,III~ IV 期患者 23例,占 82.14%。

病程分型: 非何杰金淋巴瘤 (NHL) 20例,占 71.43%;何杰金病 (HD) 6例,占 21.43%; 2例无病理资料,根据病情分析行化疗有效,占 7.14%。在 NHL患者中,B细胞源型 15例,占 75.0% (其中小淋巴细胞型 11例,占 55.0%,滤泡中心细胞小裂细胞型 3例,占 15.0%,混合细胞型 1例,占 5.0%); T细胞源型 3例,占 15.0%;组织细胞型 1例,占 5.0%; Burkitt淋巴瘤 1例,占 5.0%。

治疗: I ~ II 期患者放疗为主,III~ IV 期患者化疗为主; HD患者予 COPP方案化疗, NHL患者于 COP-THP CHOP CEOP COP-ACR等方案联合化疗,颅内浸润者辅以鞘内注射氨甲喋呤 (MTX) 10 mg及地塞米松 (Dex) 5 mg,每周 1~ 2次。

疗效: 3例诊断后自动出院未治; 4例因病情重在第 1疗程治疗中即因感染、衰竭等原因死亡; 3例化疗中有效,但未达完

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Use of probe α-globin 3′-HVR in fingerprinting in laboratory mice*

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Abstract Objective: To explore the possibility of using the probe α-globin 3′-HVR and Southern blot hybridization in monitoring genetic quality of laboratory mice. Methods: Fingerprinting of 5 strains of inbred mice (BALB/c, DBA/2, T739, TA1 and 615), 1 closed colony KM mice and 2 immunological deficient mice (BALA/c-nu/nu mice and C.B-17SCID mice) was conducted using a nonisotopically HRP labeled human origin minisatellite probe α-globin 3′-HVR and southern blot hybridization. Results: Typical hypervariable patterns of DNA fingerprint were obtained in inbred mouse strains. The patterns were completely different among the 5 strains of mice and those of the samples from the same strain were completely identical. The patterns obtained from various individuals of closed colony KM mice had some variations. BALA/c-nu/nu mice and C.B-17SCID mice produced the same DNA fingerprint patterns with BALA/c mice. Conclusion: HRP labeled human origin minisatellite α-globin 3′-HVR probe and southern blot hybridization are useful to monitor genetic quality of laboratory mice

Key words DNA fingerprinting; genetic monitoring; laboratory mouse

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全缓解,1~2疗程后自动出院。余 18例患者联合化疗后可达完全缓解,缓解率: 72.0%,但停药后复发,复发时间 11 d至 8.5月,平均复发 3.42月,生存期 6月至 5年,超过 2年者仅 5例,其中 1例达 5年,近期死亡。

2 讨论

淋巴瘤近年发病呈上升趋势,发病者男性居多,年龄不定,分别在 20~24岁,75~79岁有两个发病高峰[2],但各有其临床特点。通过对 28例分析,发现青少年患者有如下特点:① NHL占多数,其中以 B细胞源型中小淋巴细胞型居多;② 起病症状表现较重,82.14%患者有全身症状,提示预后不良;③ Ⅲ~Ⅳ期患者占 82.14%,常伴随肝脾肿大,胸腹水,并发结外浸润(胸膜、颅内、椎骨、骨髓);④ 治疗缓解率 72.0%,但维持缓解时间短、复发率高、复发后治疗效果差。目前,淋巴瘤治疗(放化疗)缓解率达 73.0%~84.0%[3],5年生存率达 35.6%~55.0%[4]。对于青少年患者特点,总结不多,其缓解率 72.0%接近于一般患者,但复发率高,5年生存率低,可能与以下因素有关:① 未能早期诊断、及时治疗:由于未尽早行淋巴结活检,部分患者曾在院外抗炎或抗痨治疗,贻误了病情;② B细胞源型 NHL易并发结外浸润,其预后亦差;③ 颅内浸润,化疗药物不易透过血-脑屏障,鞘内注射效果欠佳,4例颅内浸润者,3例死亡,1例因病情重自动出院;④ 反复多次化疗,药物耐药性产生。因此,多次化疗后的药物敏感性测定,多种化疗药物联合应用对治疗有帮助,化疗中,可予常规鞘内注射 MTX+Dex(每周 2~3次)以预防颅内浸润。但对青少年患者,早期诊断对治疗及预后有重要意义。

关键词　淋巴瘤;治疗
中图法分类号　R733.11

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