tion mediates catecholamine support for HIV-1 replication[J]. Brain Behav Immun, 2006, 20(6): 552 – 563.
[9] Tarlowe M H, Kannan K B, Itagaki K, *et al*. Inflammatory chemoreceptor cross-talk suppresses leukotriene B4 receptor 1-mediated neutrophil calcium mobilization and chemotaxis after trauma[J]. J Immunol, 2003, 171(4): 2066 – 2073.
[10] Dhabhar F S, Miller A H, McEwen B S, *et al*. Stress-induced changes in blood leukocyte distribution. Role of adrenal steroid hormones [J]. J Immunol, 1996, 157(4): 1638 – 1644.
[11] Roy B, Rai U. Dual mode of catecholamine action on splenic macrophage phagocytosis in wall lizard, Hemidactylus flaviviridis [J]. General and Comparative Endocrinology, 2004, 136(2): 180 – 191.
[12] MacFie J, Reddy B S, Gatt M, *et al*. Bacterial translocation studied in 927 patients over 13 years[J]. Br J Surg, 2006, 93(1): 87 – 93.
[13] Sileri P, Sica G S, Gentileschi P, *et al*. Melatonin reduces bacterial translocation after intestinal ischemia-reperfusion injury[J]. Transplant Proc, 2004, 36(10): 2944 – 2946.
[14] Sternberg E M. Neural regulation of innate immunity: a coordinated nonspecific host response to pathogens[J]. Nat Rev Immunol, 2006, 6(4): 318 – 328.
[15] Engler K L, Rudd M L, Ryan J J, *et al*. Autocrine actions of macrophage-derived catecholamines on interleukin-1 beta[J]. J Neuroimmunol, 2005, 160(1 – 2): 87 – 91.
[16] Jiang J, Xie G, Chen Y, *et al*. Intra-hepatic expression of scavenger receptor and CD14 and their relationship with local inflammatory responses in endotoxemia in mice[J]. Shock, 2001, 16(1): 75 – 80.
[17] Shimura H, Nitahara A, Ito A, *et al*. Up-regulation of cell surface Toll-like receptor 4-MD2 expression on dendritic epidermal T cells after the emigration from epidermis during cutaneous inflammation [J]. J Dermatol Sci, 2005, 37(2): 101 – 110.
[18] Thomas C A, Li Y, Kodama T, *et al*. Protection from lethal gram-positive infection by macrophage scavenger receptor-dependent phgocytosis[J]. J Exp Med, 2000, 1911(1): 147 – 156.
[19] Schiff D E, Kline L, Soldau K, *et al*. Phagocytosis of gram-negative bacteria by a unique CD14-dependent mechanism[J]. J Leukoc Biol, 1997, 62(6): 786 – 794.
[20] Hsieh Y C, Frink M, Hsieh C H, *et al*. Downregulation of migration inhibitory factor is critical for estrogen-mediated attenuation of lung tissue damage following trauma-hemorrhage[J]. Am J Physiol Lung Cell Mol Physiol, 2007, 292(5): L1227 – L1232.
[21] Seki E, De-Minicis S, Osterreicher C H, *et al*. TLR4 enhances TGF-beta signaling and hepatic fibrosis[J]. Nat Med, 2007, 13(11): 1324 – 1332.
[22] Fukata M, Michelsen K S, Eri R, *et al*. Toll-like receptor-4 is required for intestinal response to epithelial injury and limiting bacterial translocation in a murine model of acute colitis[J]. Am J Physiol Gastrointest Liver Physiol, 2005, 288(5): G1055 – G1065.

(编辑 吴培红)

文章编号:1000-5404(2008)21-1993-01

个案与短篇

多发性肌炎合并肾、肺、心和肝等多脏器损害1例

冯辉亮[1],李开龙[2],左洪炜[2] ([1]湖南省浏阳市人民医院肾内科,湖南 浏阳 410300;[2]第三军医大学大坪医院野战外科研究所肾内科,重庆 400042)

1 临床资料

患者,女性,69岁,因"进行性肌无力伴呼吸困难、下肢浮肿2个月余"入大坪医院野战外科研究所。2个月前因上述症状在院外行胸片检查提示"双下肺肺炎",给予"头孢哌酮和阿奇霉素"治疗4 d后症状好转出院。出院后不久再次出现全身肌无力伴疼痛,主要表现为转颈,抬肩困难,吞咽阻碍感,坐位后起立困难,上楼困难等;双侧指关节和膝关节疼痛,但局部无红、肿、和皮疹;下肢浮肿进行性加重。在该所门诊查尿常规:蛋白(++)、潜血(++),以慢性肾炎收入。否认高血压、糖尿病和慢性肾脏疾病史。入院查体:慢性病容,呼吸急促,全身皮肤无皮疹;双肺底可闻及裂帛音(Velcro音);心界略向左扩大,心率119次/min,律齐,各瓣膜听诊区未闻及病理性杂音;四肢肌肉无萎缩,四肢肌力Ⅱ~Ⅲ级,肌张力正常,腱反射消失,病理反射未引出;全身肌肉有触痛,无感觉障碍。血常规:WBC 9.67×10^9/L、中性粒细胞71.4%、淋巴细胞18.6%、HGB 109 g/L、PLT 230×10^9/L;尿常规:蛋白(++)、潜血(+++)、RBC 6~8个/HP;尿蛋白定量1.63 g/24 h;红细胞沉降率(ESR) 19 mm/h;C反应蛋白(CRP) 11.6 mg/L;抗"O"抗体及RF阴性;肾功:BUN 4.8 mmol/L、Scr 59.9 μmol/L、尿酸(URIC)297.6 μmol/L;肝功:TP 51.5 g/L、ALB 23.2 g/L、GLB 28.3 g/L、AST 635.7 U/L、ALT 447.1 U/L、ALP 102.6 U/L、GGT 33.2 U/L、LDH 1 369.5 U/L;心肌损伤标志物:TNT 1.25 ng/ml、CK-MB 252.4 ng/ml、肌红蛋白(MYO) >3 000 ng/ml;CK 6 089.7 U/L;自身抗体:ANA(+)1∶100,抗SS-A抗体(+),抗RO-52抗体(+),余为阴性;补体C3、C4以及T4、T3、TSH和血皮质醇正常。双膝关节正侧位片提示退行性改变;颅脑螺旋CT提示脑萎缩、腔隙性脑梗死;心脏B超提示左室增大和顺应性下降、射血分数63%;心电图示窦性心动过速,T波异常(Ⅱ、Ⅲ、aVF、V4~V6低平双向,V1~V3倒置),疑急性非ST段抬高心肌梗死;胸部64层CT提示双肺间质性炎症、弥漫性肺间质纤维化、双下肺炎症、双侧肋膈角积液;肾穿刺活检病理诊断:轻度系膜增生性肾小球肾炎伴IgM和C3

(下转1997页)

作者简介:冯辉亮,男,湖南省浏阳市人,主治医师,主要从事肾脏疾病临床诊治方面的研究。电话:(0731)2386109
通信作者:李开龙,电话:(023)68757872,E-mail:likailong1966@163.com
收稿日期:2008-04-05;修回日期:2008-06-02

数目减少,因此促进了单核细胞自噬水平的升高[13]。在本实验中,创伤程度越重,患者高血糖症越明显,单核细胞自噬水平升高越显著。我们推测认为,创伤后外周血单核细胞自噬水平与血糖虽然在一定程度上成正比,但不直接相关,而是与胰岛素/胰高糖素密切相关,但由于本实验尚未检测胰岛素、胰高糖素水平,其确切的关系有待于在下一阶段研究中予以阐明。

因此,在创伤状态下,发生自噬的潜在生物学意义在于通过体外调节创伤后抗原呈递细胞(包括单核细胞)的自噬水平,逆转或缓解其抗原呈递功能失衡,从而恢复机体的免疫功能,减少并发症,改善预后。

参考文献:

[1] Shintani T, Klionsky D J. Autophagy in health and disease: a double-edged sword[J]. Science, 2004, 306(5698): 990 - 995.

[2] Schmid D, Dengjel J, Schoor O, *et al*. Autophagy in innate and adaptive immunity against intracellular pathogens[J]. J Mol Med, 2006, 84(3): 194 - 202.

[3] Deretic V. Autophagy in innate and adaptive immunity[J]. Trends Immunol, 2005, 26(10): 523 - 528.

[4] Levine B. Eating oneself and uninvited guests: autophagy-related pathways in cellular defense[J]. Cell, 2005, 120(2): 159 - 162.

[5] Huang J, Klionsky D J. Autophagy and human disease[J]. Cell Cycle, 2007, 6(15): 1837 - 1849.

[6] Ventruti A, Cuervo A M. Autophagy and Neurodegeneration[J]. Curr Neurol Neurosci Rep, 2007, 7(5): 443 - 451.

[7] Levine B. Cell biology: autophagy and cancer[J]. Nature, 2007, 446(7137): 745 - 747.

[8] Heymann D. Autophagy: A protective mechanism in response to stress and inflammation[J]. Curr Opin Investig Drugs, 2006, 7(5): 443 - 450.

[9] Ullman E, Fan Y, Stawowczyk M, *et al*. Autophagy promotes necrosis in apoptosis-deficient cells in response to ER stress[J]. Cell Death Differ, 2008, 15(1): 422 - 425.

[10] Maiuri M C, Zalckvar E, Kimchi A, *et al*. Self-eating and self-killing: crosstalk between autophagy and apoptosis[J]. Nat Rev Mol Cell Biol, 2007, 8(9): 741 - 752.

[11] Kessel D, Reiners J J Jr. Apoptosis and autophagy after mitochondrial or endoplasmic reticulum photodamage[J]. Photochem Photobiol, 2007, 83(5): 1024 - 1028.

[12] 赵晓东,姚咏明,马俊勋,等. 胰岛素强化治疗对创伤患者免疫球蛋白、补体及单核细胞噬菌能力的影响[J]. 中国危重病急救医学, 2007, 19(5): 279 - 282.

[13] Kanazawa T, Taneike I, Akaishi R, *et al*. Amino acids and insulin control autophagic proteolysis through different signaling pathways in relation to mTOR in isolated rat hepatocytes[J]. The Journal of Biological Chemistry, 2004, 279: 8452 - 8459.

(编辑　吴培红)

(上接 1993 页)

在系膜区和毛细血管壁沉积;肌电图提示肌源性损害;左侧腓肠肌活检提示肌纤维变性萎缩伴慢性炎症。诊断为多发性肌炎合并心、肺、肝和肾多脏器损害。给予甲基强的松龙 1.0 g,静脉滴注,1 次/d ×3 次,后改为甲泼尼龙片 40 mg,口服,1 次/d;同时给予来氟米特(商品名爱诺华)40 mg,口服,1 次/d ×3 次,后改为 20 mg,口服,1 次/d。1 周后患者自觉症状减轻。维持治疗 20 d 后临床症状消失,可下床活动。复查尿常规:蛋白(-)、潜血(+-)、RBC 1 ~ 3 个/HP。尿蛋白定量 0.18 g/24 h。肝功:TP 60.6g/L、ALB 30.4 g/L、GLB 30.2 g/L、AST 66.0 U/L、ALT 108.5 U/L、ALP 49.2 U/L、GGT 17.5 U/L、LDH 550.7 U/L;心肌损伤标志物:TNT 0.45 ng/ml、CK-MB 44.01 ng/ml、MYO > 814.2 ng/ml;CK 1 022.9 U/L。患者出院。1 个月后门诊复查,血、尿常规和肝肾功能正常;TNT 0.17 ng/ml、CK-MB 6.82 ng/ml、MYO > 110.6 ng/ml、CK 87.1 U/L。将甲泼尼龙片改为 32 mg,口服,1 次/d;来氟米特 20 mg,口服,1 次/d 维持。第 2 个月复查,全部指标正常,停用来氟米特,甲泼尼龙片每周撤减 4 mg,直至停用。随访至今(10 个月)未复发。

2　讨论

多发性肌炎(polymyositis,PM)是一组累及骨骼肌的、以肌间质性炎变和肌纤维变性为主要特点的综合征,表现为近端肢体、颈部及吞咽肌无力,可伴有肌痛及肌萎缩,并且可合并肾、肺、心和肝等多脏器损害等多个脏器[1-3],国内叶明等[2]报道过 1 例 PM 同时合并肺、肾损害的病例;国外类似病例也少见报道[3],其中合并肾脏损害的病例更为少见,像本病例这样同时合并 4 个脏器损害的 PM 实属罕见。目前研究表明 PM 合并肾脏损害的唯一病理类型是系膜增生性肾小球肾炎(mesangial proliferative glomerulonephritis,mesPGN),伴随免疫球蛋白(如 IgA、IgM 或 IgG)和补体(如 C3 或 C1q)在系膜区、小管或血管壁沉积[3]。本例患者的肾脏损害表现为轻度 mesPGN,伴有 IgM 和 C3 在系膜区和毛细血管壁的沉积。PM 系细胞介导的免疫过程,$CD8^+$ 在肌纤维的聚集促进细胞因子的释放,可能刺激系膜细胞增殖;而 $CD4^+$ 和 B 细胞可激活补体,引起补体在肌肉和肾脏毛细血管沉积,损伤血管内皮,从而导致组织和器官的损害[3]。PM 合并的心、肺和肝脏损害可能存在同样的发生机制,但尚需更多的临床和基础研究证实。糖皮质激素是治疗 PM 的首选药物,但对于合并多脏器损害的 PM 单用激素似乎不能迅速有效的控制疾病进展,往往需要联用细胞毒药物(如环孢霉素 A)和免疫球蛋白[1,3]。我们对本病例使用激素联合来氟米特的治疗方法收到理想的效果,值得临床医师借鉴。

关键词:多发性肌炎;多脏器损害;糖皮质激素;来氟米特
中图法分类号:R593.26　　**文献标识码**:B

参考文献:

[1] 刘　芳,蒲传强. 多发性肌炎合并心脏损害误诊为冠心病一例[J]. 中华老年医学杂志,2006,25(9): 705 - 706.

[2] 叶　明,李　涛,李承姜. 多发性肌炎合并肺、肾受损临床分析[J]. 临床内科杂志,2007,24(10): 703 - 704.

[3] Takizawa Y, Kanda H, Sato K, *et al*. Polymyositis associated with focal mesangial proliferative glomerulonephritis with depositions of immune complexes[J]. Clin Rheumatol, 2007, 26(5): 792 - 796.

(编辑　邓强庭)