cell-lines to TRAIL and doxorubicin[J]. Mol Cancer, 2006, 5: 34.
[2] Moser J J, Eystathioy T, Chan E K, *et al*. Markers of mRNA stabilization and degradation, and RNAi within astrocytoma GW bodies[J]. J Neurosci Res, 2007, 85(16): 3619-3631.
[3] McManus M T, Sharp P A. Gene silencing in mammals by small interfering RNAs[J]. Nat Rev Genet, 2002, 3(10): 737-747.
[4] Vickers T A, Koo S, Bennett C F, *et al*. Efficient reduction of target RNAs by small interfering RNA and RNase H-dependent antisense agents. A comparative analysis[J]. J Biol Chem, 2003, 278(9): 7108-7118.
[5] Ramp V, Krieg T, Caliskan E, *et al*. XIAP expression is an independent prognostic marker in clear-cell renal carcinomas[J]. Hum Pathol, 2004, 35(8): 1022-1028.
[6] Wilkinson J C, Wilkinson A S, Galban S, *et al*. Apoptosis-inducing factor is a target for ubiquitination through interaction with XIAP[J]. Mol Cell Biol, 2008, 28(1): 237-247.
[7] Hu Y P, Cherton-Horvat G, Dragowska V, *et al*. Antisense oligonucleotides targeting XIAP induce apoptosis and enhance chemotherapeutic activity against human lung cancer cells *in vitro* and *in vivo*[J]. Clin Cancer Res, 2003, 9(7): 2826-2836.
[8] Brummelkamp T R, Bernards R, Agami R. A system for stable expression of short interfering RNAs in mammalian cells[J]. Science, 2002, 296(5567): 550-553.
[9] Morizane Y, Honda R, Fukami K, *et al*. X-linked inhibitor of apoptosis functions as ubiquitin ligase toward mature caspase-9 and cytosolic Smac/DIABLO[J]. J Biochem (Tokyo), 2005, 137(2): 125-132.
[10] Marsden V S, Ekert P G, Van-Delft M, *et al*. Bcl-2-regulated apoptosis and cytochrome c release can occur independently of both caspase-2 and caspase-9[J]. J Cell Biol, 2004, 165(6): 775-780.
[11] Liu Q, Hilsenbeck S, Gazitt Y. Arsenic trioxide-induced apoptosis in myeloma cells: p53-dependent G_1 or G_2/M cell cycle arrest, activation of caspase-8 or caspase-9, and synergy with APO2/TRAIL[J]. Blood, 2003, 101(10): 4078-4087.
[12] 王东, 张沁宏, 仲召阳, 等. 骨肉瘤 DNA 损伤修复相关基因表达与预后的关系[J]. 第三军医大学学报, 2005, 27(13): 1370-1373.
[13] Swift L P, Rephaeli A, Nudelman A, *et al*. Doxorubicin-DNA adducts induce a non-topoisomerase II-mediated form of cell death[J]. Cancer Res, 2006, 66(9): 4863-4871.

（**收稿**:2009-11-24;**修回**:2009-12-28）
（编辑　张　维）

文章编号:1000-5404(2010)12-1315-01

个案与短篇

老年起病的灰质异位症 1 例

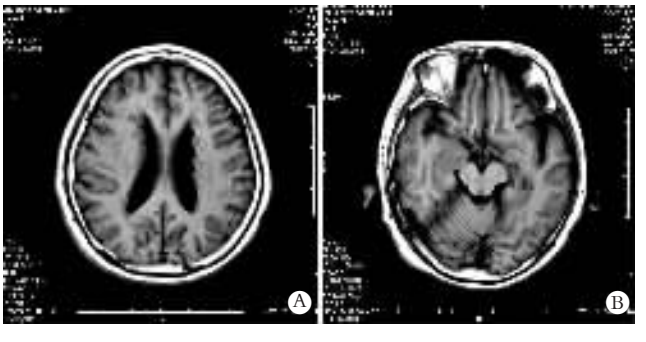
黄　诚,牟　君,董为伟　（400016 重庆,重庆医科大学附属第一医院神经内科）

[关键词] 灰质异位症;老年人;癫痫
[中图法分类号] R742.8　**[文献标志码]** B

脑灰质异位症(heterotopic gray matter,HGM)是指胚胎期神经迁移异常或室周基质内的神经母细胞凋亡失败导致皮质下神经元不能迁移到正常部位所引起的一种皮质发育畸形疾病[1]。临床表现为癫痫、精神和智力发育障碍、神经系统功能缺失三大主征。通常在儿童期或 10~20 岁起病[2],老年发病罕见。我院诊断 1 例 61 岁以癫痫起病,不伴有精神、智力发育障碍及神经系统功能缺失的灰质异位症患者,现报告如下。

1　临床资料

患者,女性,64 岁,因发作性意识丧失 2 个月于 2009 年 12 月 30 日入本院。入院前 2 个月,患者于坐位突然出现头部后仰、双目凝视、牙关紧闭、呼之不应,持续约数分钟,不伴有肢体抽搐、舌咬伤及大小便失禁,发作 2 次。追问病史,入院前 1 年曾有类似发作 1 次,在急诊送往医院途中意识恢复。3 年前患者夜间起床上厕所时突然出现意识丧失,跌倒伴有左上臂骨折,发作时无家属在场,具体发作情况及意识障碍持续时间不详。既往有高血压病史 4 年,最高血压 190/110 mmHg,平时口服厄贝沙坦 150 mg(1 次/d)降压,血压控制理想。个人史:顺产,幼年无高热惊厥史,无头颅外伤史,发育正常,育 1 子 1 女,子女健康。无癫痫家族史。查体:神清,合作,对答切题,记忆、计算、视空间能力、人格正常。颅神经检查阴性,肌力、肌张力正常,腱反射对称,无感觉障碍、共济失调及脑膜刺激征。左下肢巴氏征(+),右下肢巴氏征(±)。头颅、脊柱、关节、四肢未见畸形。心肺腹未查及阳性体征。辅助检查:EEG:可见额叶和颞叶中-高幅 θ 活动、高幅 δ 波、尖波、尖慢波,持续时间 2~5 s,双侧不对称。头颅 MRI 平扫提示双侧侧脑室体部呈波浪状改变,还见到海马萎缩和皮层萎缩(图 1)。头颈部 CTA 提示右侧大脑前动脉 A1 段未见显示,右侧颈内动脉虹吸部局限性狭窄。血、尿、大便常规、肝肾功、电解质、血脂、血糖正常。诊断为继发性癫痫、灰质异位症。患者未服用抗癫痫药物,随访 3 个月无发作。



A:侧脑室体部呈波浪状改变;B:海马、皮层萎缩
图 1　患者头颅 MRI 平扫结果

[通信作者] 牟　君,E-mail:mujun0719@hotmail.com

（下转 1320 页）

[2] Schols D, Struyf S, Van-Damme J, *et al*. Inhibition of T-tropic HIV strains by selective antagonization of the chemokine receptor CXCR4 [J]. J Exp Med, 1997, 186(8): 1383 - 1388.
[3] Muller A, Homey B, Soto H, *et al*. Involvement of chemokine receptors in breast cancer metastasis[J]. Nature, 2001, 410(6824): 50 - 56.
[4] Joukov V, Pajusola K, Kaipainen A, *et al*. A novel vascular endothelial growth factor, VEGF-C, is a ligand for the Flt4 (VEGFR-3) and KDR (VEGFR-2) receptor tyrosine kinases[J]. EMBO J, 1996, 15(2): 290 - 298.
[5] Paget S. The distribution of secondary growths in cancer of the breast [J]. Lancet, 1889, 133(3421): 571 573.
[6] Lee H J, Kim S W, Kim H Y, *et al*. Chemokine receptor CXCR4 expression, function, and clinical implications in gastric cancer[J]. Int J Oncol, 2009, 34(2): 473 - 480.
[7] Saur D, Seidler B, Schneider G, *et al*. CXCR4 expression increases liver and lung metastasis in a mouse model of pancreatic cancer[J]. Gastroenterology, 2005, 129(4): 1237 - 1250.
[8] Zlotnik A. Chemokines and cancer[J]. Int J Cancer, 2006, 119(9): 2026 - 2029.
[9] 张园园, 胡国华, 李忠万, 等. SDF-1/CXCR4 与 VEGF-C 在喉癌中的表达及与淋巴结转移的关系[J]. 重庆医科大学学报, 2009, 34(5): 537 - 542.
[10] 孙梯业, 赵永亮, 颜伟, 等. CXCR4 在 VEGF-C 介导的胃癌淋巴道转移中的作用[J]. 第三军医大学学报, 2008, 30(2): 162 - 166.
[11] 彭亦良, 梁后杰, 高晋华, 等. CXCR4 和 VEGF-C 在结肠癌组织中的表达及与淋巴结转移之间的关系[J]. 第三军医大学学报, 2006, 28(4): 357 - 359.
[12] Jiang Y P, Wu X H, Xing H Y, *et al*. Role of CXCL12 in metastasis of human ovarian cancer[J]. Chin Med J (Engl), 2007, 120(14): 1251 - 1255.
[13] Zagzag D, Esencay M, Mendez O, *et al*. Hypoxia- and vascular endothelial growth factor-induced stromal cell-derived factor-1alpha/CXCR4 expression in glioblastomas: one plausible explanation of Scherer's structures[J]. Am J Pathol, 2008, 173(2): 545 - 560.
[14] Chen G S, Yu H S, Lan C C, *et al*. CXC chemokine receptor CXCR4 expression enhances tumorigenesis and angiogenesis of basal cell carcinoma[J]. Br J Dermatol, 2006, 154(5): 910 - 918.
[15] Zhang S, Qi L, Li M, *et al*. Chemokine CXCL12 and its receptor CXCR4 expression are associated with perineural invasion of prostate cancer[J]. J Exp Clin Cancer Res, 2008, 27: 62.
[16] Li J K, Yu L, Shen Y, *et al*. Inhibition of CXCR4 activity with AMD3100 decreases invasion of human colorectal cancer cells *in vitro* [J]. World J Gastroenterol, 2008, 14(15): 2308 - 2313.
[17] Kajiyama H, Shibata K, Terauchi M, *et al*. Involvement of SDF-1alpha/CXCR4 axis in the enhanced peritoneal metastasis of epithelial ovarian carcinoma[J]. Int J Cancer, 2008, 122(1): 91 - 99.
[18] Libura J, Drukala J, Majka M, *et al*. CXCR4-SDF-1 signaling is active in rhabdomyosarcoma cells and regulates locomotion, chemotaxis, and adhesion[J]. Blood, 2002, 100(7): 2597 - 2606.
[19] 邱际华, 刘求真, 陈丽, 等. CXCR4/SDF-1 对鼻咽癌细胞增殖与迁移能力的影响[J]. 第三军医大学学报, 2009, 31(7): 598 - 600.

(**收稿**:2009-11-23;**修回**:2010-01-27)
(编辑 王 红)

(上接1315页)

2 讨论

CT、MRI出现后,国际上将脑灰质异位症统一分为:①室管膜下HGM(Subependymal HGM,SEH,室旁结节型);②皮质下HGM(Subependymal HGM,SCH,板型或岛型);③带状HGM(Band HGM,BH,带型)。本例患者影像诊断为室管膜下HGM,其头颅MRI表现为大小不等的结节状异位灶紧贴侧脑室表面或突入侧脑室,这些异位灶可单发或多发,分布在一侧或两侧侧脑室周围[4]。异位灶本身及周围的白质组织均发育正常,故此类患者的运动和语言功能多无异常,没有或仅有轻微的智能障碍,但90%的结节状灰质异位患者可表现为癫痫[3]。癫痫发作类型多样,以强直-阵挛及复杂部分性发作多见。室管膜下HGM本院曾报道过2例青年起病,以复杂部分发作为主要表现的灰质异位个案。本例患者61岁起病,以癫痫为首发和唯一的临床表现,不伴智能障碍和神经功能缺失,国内外文献未见报道。临床上对于老年不明原因的癫痫患者需考虑到HGM的可能性。赵凯宇等[5]指出不典型灰质异位症CT诊断有一定局限性,头颅MRI是灰质异位症首选检查手段。但仍需与结节性硬化、肿瘤颅内播散相鉴别。无症状的皮质异位症患者一般无需治疗。药物治疗HGM所致癫痫,卡马西平常为首选[6]。罗智刚等[7]对于HGM所致的难治性癫痫,认为采用联合异位灰质切除、皮层灼热及同层颞前叶切除等术式的外科手术是有效的治疗方法。有研究[8]表明结节型HGM手术治疗较好,但手术长期疗效有待进一步观察。

参考文献:

[1] Kobayashi E, Bagshaw A P, Grova C, *et al*. Grey matter heterotopia: what EEG-fMRI can tell as about epileptogenicity of neuronal migration disorders[J]. Brain, 2006, 129(Pt2): 366 - 374.
[2] 李洪亮, 邵宝富, 郭慧琴, 等. 脑灰质异位症4例报告及临床分析[J]. 临床和实验医学杂志, 2006, 5(1): 17 - 18.
[3] Guerrini R. Genetic malformations of the cerebral cortex and epilepsy [J]. Epilepsia, 2005, 46(Suppl 1): 32 - 37.
[4] 赵松耀, 周东, 范秉林, 等. 脑灰质异位症伴癫痫两例报告并文献分析[J]. 现代预防医学, 2007, (5): 985 - 986.
[5] 赵凯宇, 李晓红. 大脑灰质异位症的临床表现和影像学特征[J]. 实用医学杂志, 2009, 25(12): 2031 - 2032.
[6] Lu J, Sheen V. Periventricular heterotopia [J]. Epilepsy Behavior, 2005, 7(2): 143 - 149.
[7] 罗智刚, 唐运林, 周连银, 等. 灰质异位所致癫痫的外科治疗[J]. 中华神经医学杂志, 2009, 8(1): 33 - 35.
[8] Luders H, Schuele S U. Epilepsy surgery in patients with malformations of cortical development[J]. Curr Opin Neurol, 2006, 19(2): 169 - 174.

(**收稿**:2010-03-29;**修回**:2010-05-06)
(编辑 汪勤俭)