

- [34] Hellwig K, Haghikia A, Gold R. Pregnancy and natalizumab: results of an observational study in 35 accidental pregnancies during natalizumab treatment. *Mult Scler*, 2011, 17:958-963.
- [35] Aguilera AJ, Carlow TJ, Smith KJ, Simon TL. Lymphocytoplasmapheresis in Devic's syndrome. *Transfusion*, 1985, 25:54-56.
- [36] Gunaydin B, Akcali D, Alkan M. Epidural anaesthesia for Caesarean section in a patient with Devic's syndrome. *Anaesthesia*, 2001, 56:565-567.
- [37] Wingerchuk DM, Banwell B, Bennett JL, Cabre P, Carroll W, Chitnis T, de Seze J, Fujihara K, Greenberg B, Jacob A, Jarius S, Lana - Peixoto M, Levy M, Simon JH, Tenenbaum S, Traboulsee AL, Waters P, Wellik KE, Weinschenker BG; International Panel for NMO Diagnosis. International consensus diagnostic criteria for neuromyelitis optica spectrum disorders. *Neurology*, 2015, 85:177-189.
- [38] Feng K, Zhang XH, Xu XH. The developmental history of study on neuromyelitis optica. *Zhongguo Xian Dai Shen Jing Ji Bing Za Zhi*, 2014, 14:744-750. [冯凯, 张星虎, 许贤豪. 视神经脊髓炎研究发展史. *中国现代神经疾病杂志*, 2014, 14:744-750.]

(收稿日期:2016-07-19)

· 临床医学图像 ·

弥漫性星形细胞瘤, IDH-突变

doi: 10.3969/j.issn.1672-6731.2016.10.016

Diffuse astrocytoma, IDH-mutant

YAN Xiao-ling

Department of Pathology, Tianjin Huanhu Hospital, Tianjin 300350, China (Email: ll934065@126.com)

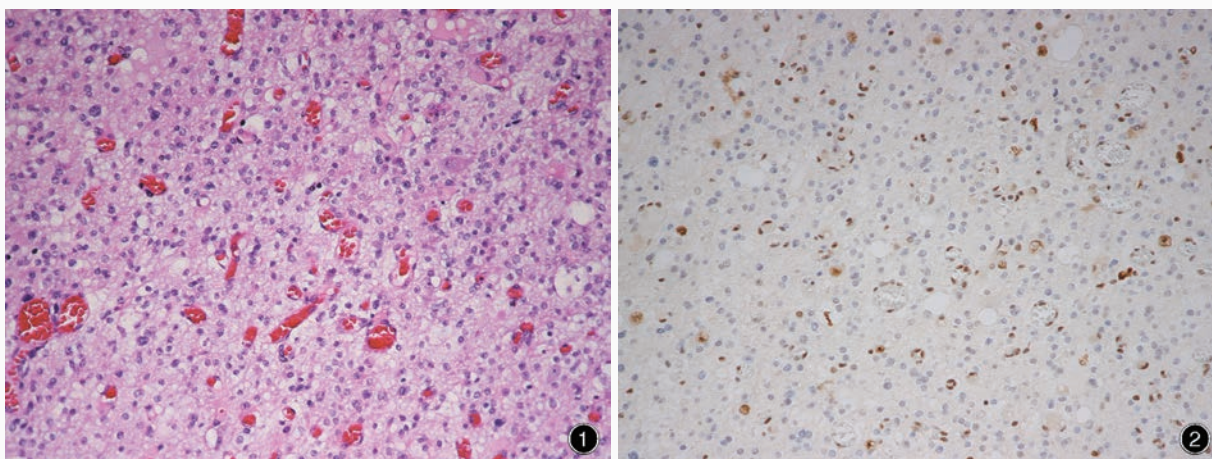


图1 光学显微镜观察显示,弥漫性星形细胞瘤细胞密度较低,胞核轻度异型性 HE染色 ×200 图2 光学显微镜观察显示,肿瘤细胞胞核不表达 ATRX,而正常细胞胞核表达 ATRX 免疫组织化学染色(EnVision 二步法) ×200

Figure 1 Optical microscopy findings Diffuse astrocytoma cells showed low cell density and nuclear atypia. HE staining ×200

Figure 2 Optical microscopy findings Nuclei of tumor cells were negative for ATRX, while nuclei of normal cells were positive for ATRX. Immunohistochemical staining (EnVision) ×200

2016 年世界卫生组织(WHO)中枢神经系统肿瘤分类将“弥漫性星形细胞瘤, IDH-突变”定义为伴异柠檬酸脱氢酶 1/2 (*IDH1/2*)基因突变的弥漫浸润性星形细胞瘤。其典型特征为中度细胞多形性,分化较好,生长缓慢, *ATRX* 和 *TP53* 基因突变支持诊断。该肿瘤好发于青年,可发生于中枢神经系统任何部位,常累及额叶。组织学形态观察,肿瘤组织由分化良好的纤维性星形胶质细胞组成,间质疏松,呈微囊样,肿瘤细胞密度轻至中等,胞质不明显,胞核呈“雪茄”状或不规则深染(图1)。免疫组织化学染色,肿瘤细胞胞质弥漫性表达胶质纤维酸性蛋白(GFAP),但表达强度不一,胞质强阳性表达、胞核弱阳性表达抗 R132H-突变的 *IDH1* 抗体,胞核强阳性表达 P53、不表达 ATRX,而正常细胞、未突变细胞胞核表达 ATRX(图2)。

(天津市环湖医院病理科阎晓玲供稿)