

- Tranebjaerg L, Volpini V, Wood N, Ranum L, Tsuji S, Brice A, Sequeiros J, Rouleau GA. Ancestral origins of the Machado-Joseph disease mutation: a worldwide haplotype study. *Am J Hum Genet*, 2001, 68:523-528.
- [32] Miller VM, Xia H, Marrs GL, Gouvion CM, Lee G, Davidson BL, Paulson HL. Allele-specific silencing of dominant disease genes. *Proc Natl Acad Sci USA*, 2003, 100:7195-7200.
- [33] Li Y, Yokota T, Matsumura R, Taira K, Mizusawa H. Sequence-dependent and independent inhibition specific for mutant ataxin-3 by small interfering RNA. *Ann Neurol*, 2004, 56:124-129.
- [34] Hu J, Matsui M, Gagnon KT, Schwartz JC, Gabillet S, Arar K, Wu J, Bezprozvany I, Corey DR. Allele-specific silencing of mutant huntingtin and ataxin-3 genes by targeting expanded CAG repeats in mRNAs. *Nat Biotechnol*, 2009, 27:478-484.
- [35] Hu J, Gagnon KT, Liu J, Watts JK, Syeda-Nawaz J, Bennett CF, Swayze EE, Randolph J, Chattopadhyaya J, Corey DR. Allele-selective inhibition of ataxin-3 (ATX3) expression by antisense oligomers and duplex RNAs. *Biol Chem*, 2011, 392:315-325.
- [36] Kuhn DE, Nuovo GJ, Terry AV Jr, Martin MM, Malana GE, Sansom SE, Pleister AP, Beck WD, Head E, Feldman DS, Elton TS. Chromosome 21-derived microRNAs provide an etiological basis for aberrant protein expression in human Down syndrome brains. *J Biol Chem*, 2010, 285:1529-1543.

(收稿日期:2013-05-03)

· 临床医学图像 ·

小脑脂肪神经细胞瘤

doi: 10.3969/j.issn.1672-6731.2013.08.018

Cerebellar liponeurocytoma

YAN Xiao-ling

Department of Pathology, Tianjin Huanhu Hospital, Tianjin 300060, China (Email: ll934065@126.com)

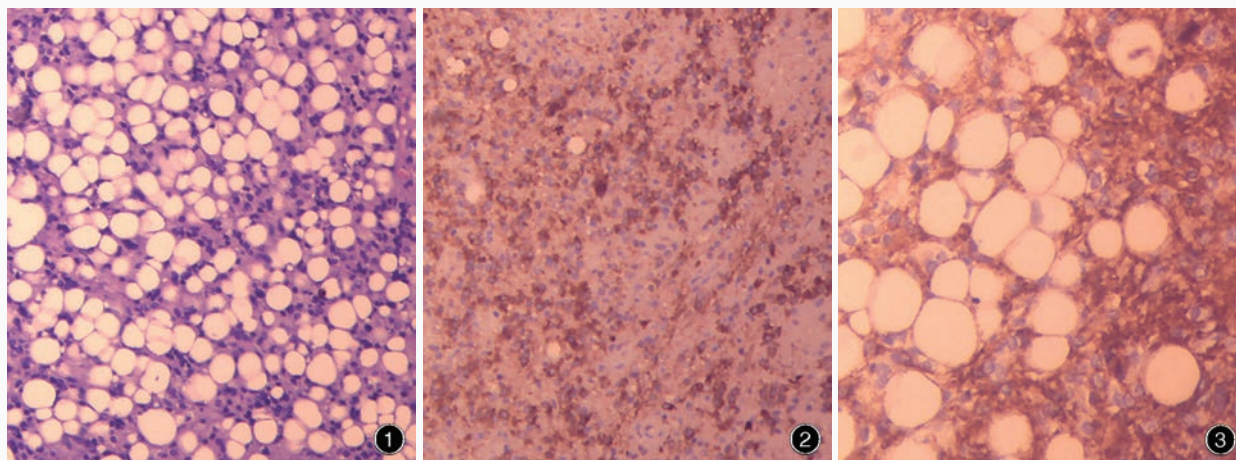


图1 光学显微镜观察,小圆形肿瘤细胞背景中可见含脂肪滴的细胞聚积,肿瘤细胞较一致,胞核呈圆形或卵圆形,胞质透明 HE染色 低倍放大 图2 光学显微镜观察,肿瘤细胞突触素表达阳性 免疫组织化学染色(EnVision二步法) 低倍放大 图3 光学显微镜观察,肿瘤细胞和含脂肪滴的细胞胶质纤维酸性蛋白呈灶性表达阳性 免疫组织化学染色(EnVision二步法) 中倍放大

Figure 1 Optical microscopy showed cerebellar liponeurocytoma with accumulation of lipid-laden cells in a background of small round neoplastic cells. Tumor cells had a uniform cytological appearance with round or oval nuclei and often showed a clear cytoplasm. HE staining low power magnified **Figure 2** Optical microscopy showed positive expression of Syn. Immunohistochemical staining (EnVision) low power magnified **Figure 3** Optical microscopy showed small tumor cells and lipid-laden cells focally expressed GFAP. Immunohistochemical staining (EnVision) medium power magnified

小脑脂肪神经细胞瘤是发生于成人小脑的临床罕见肿瘤,伴神经元、神经胶质细胞和灶性脂肪瘤分化,生长缓慢,虽具有复发倾向但预后良好。肿瘤细胞成分类似于中枢神经细胞瘤,大小一致,胞核呈圆形或卵圆形,胞质透明,胞膜界限不清;其组织形态学表现为灶性脂肪瘤样含脂肪滴的细胞聚集(图1)。免疫组织化学染色提示为神经上皮组织肿瘤细胞内脂肪聚积而非正常脂肪细胞;肿瘤细胞胞质神经元特异性烯醇化酶(NSE)、突触素(Syn,图2)和微管相关蛋白2(MAP2)表达阳性,大部分肿瘤细胞灶性表达胶质纤维酸性蛋白(GFAP,图3),提示呈星形胶质细胞分化。

(天津市环湖医院病理科阎晓玲供稿)