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原发性垂体脓肿一例及相关文献复习

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摘　要

本文报道无明显感染症状的原发性垂体脓肿一例。患者男，74岁，自诉10年前无明显诱因出现头昏不适，间断发作，多次发作时测量血压高于正常，最高血压大于180/110 mmHg，予以硝苯地平缓释片降压治疗，症状缓解，余无不适。10天前患者无明显诱因再发头昏、伴顶枕部头部闷痛，无耳鸣、心悸、肢体麻木及活动障碍，自服硝苯地平缓释片症状无缓解，为求诊治遂来我院，门诊以“高血压病”收入心血管内科进一步诊治，入院行颅脑CT检查示鞍区占位性病变。颅脑MRI及增强检查示鞍区环形囊实性占位性病变，增强呈不规则环形强化。经院内大会诊转入神经外科行鞍区肿瘤切除手术，术中肿块切开可见黄白色脓液流出，手术及病理诊断为垂体脓肿。

关键词

垂体脓肿，体层摄影术，X线计算机，磁共振成像

Primary Pituitary Abscess: A Case Report with Review of Literature

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Abstract

A case of primary pituitary abscess without obvious infectious symptoms is reported in this paper. A 74-year-old male patient complained that he had dizziness and discomfort without clear induce-

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ment since a decade ago, accompanied by intermittent attacks, and the measured blood pressure was higher than normal when he had multiple attacks, and the highest blood pressure was greater than 180/110 mmHg. He was treated with nifedipine sustained-release tablets, the symptoms were relieved, and the rest was normal. 10 days ago, without clear inducement, he suffered from dizziness and stuffy pain in the head of the top and occipital part again, without tinnitus, palpitation, limb numbness and movement disorder. He took nifedipine sustained-release tablets on his own and his symptoms could not be alleviated. In order to seek further diagnosis and treatment, he came to our hospital and was admitted to the cardiovascular department for further diagnosis and treatment according to "hypertension". Brain CT examination showed that the mass in sellar region was at the time of admission. Brain MRI and contrast-enhanced examination revealed a circular cystic solid mass in the sellar region with irregular circular enhancement. After multidisciplinary consultation in the hospital, he was transferred to neurosurgery for tumor resection in the sellar region. Yellow and white pus was seen flowing out of the mass during the operation. Finally, he was diagnosed as pituitary abscess by operation and pathology.

Keywords

Pituitary Abscess, Tomography, X-Ray Computed, Magnetic Resonance Imaging

1. 引言

原发性垂体脓肿(Primary pituitary abscess, PPA)是一种罕见的临床感染性疾病，通常预后不良[1]。PPA的术前准确诊断是治疗和良好预后的关键，目前MRI是最有效的检查手段，但该病与其它垂体疾病在影像学特征上具有相似性，导致PPA诊断困难，缺乏经验，术前临床误诊率较高[2]。笔者回顾性分析一例原发性垂体脓肿的临床及CT、MRI表现，并结合相关文献复习，旨在提高对垂体脓肿的认识。

2. 病例资料

患者男，74岁，因间断头昏10年，再发伴头痛10天于2017年10月25日收入院。患者自诉10年前无明显诱因出现头昏不适，间断发作，多次发作时测量血压高于正常，最高血压大于180/110 mmHg，予以硝苯地平缓释片降压治疗，症状缓解，余无不适。10天前患者无明显诱因再发头昏、伴顶枕部头部闷痛，无耳鸣、心悸、肢体麻木及活动障碍，自服硝苯地平缓释片症状无缓解，为求诊治遂来我院，门诊以"高血压病"收入心血管内科进一步诊治，入院行颅脑CT检查示鞍区椭圆形肿块，中心呈低密度影，外周呈环形等密度，邻近无骨质破坏(图1(a)、图1(b))。颅脑MRI及增强检查示蝶鞍扩大，鞍区见一大小2.5 cm × 2.0 cm × 2.2 cm椭圆形囊实性肿块，T1加权像(图1(c)、图1(d))示肿块外周呈厚薄不一环形等信号，中心呈小片状低信号，T2加权像(图1(e))示肿块外周呈等信号，中心呈高信号；增强(图1(f)、图1(g))肿块外周呈明显不规则环形强化伴延迟强化，中心无强化。双侧颈内动脉未见明显异常；双侧海绵窦明显强化；正常垂体及垂体柄形态未见显示，视交叉受压推挤改变。经院内大会诊转入神经外科行鞍区肿瘤切除手术，术中发现鞍内肿块僵硬，切除肿块切开可见黄白色脓液流出，组织遂送病检，镜下观(图1(h)、图1(i))肿块内可见垂体组织、纤维结缔组织、大量急慢性炎性细胞伴脓肿形成；术中脓液细菌培养阴性；最终病理诊断垂体脓肿。术3月后CT随访病变无复发，术后5年电话随访患者预后良好。

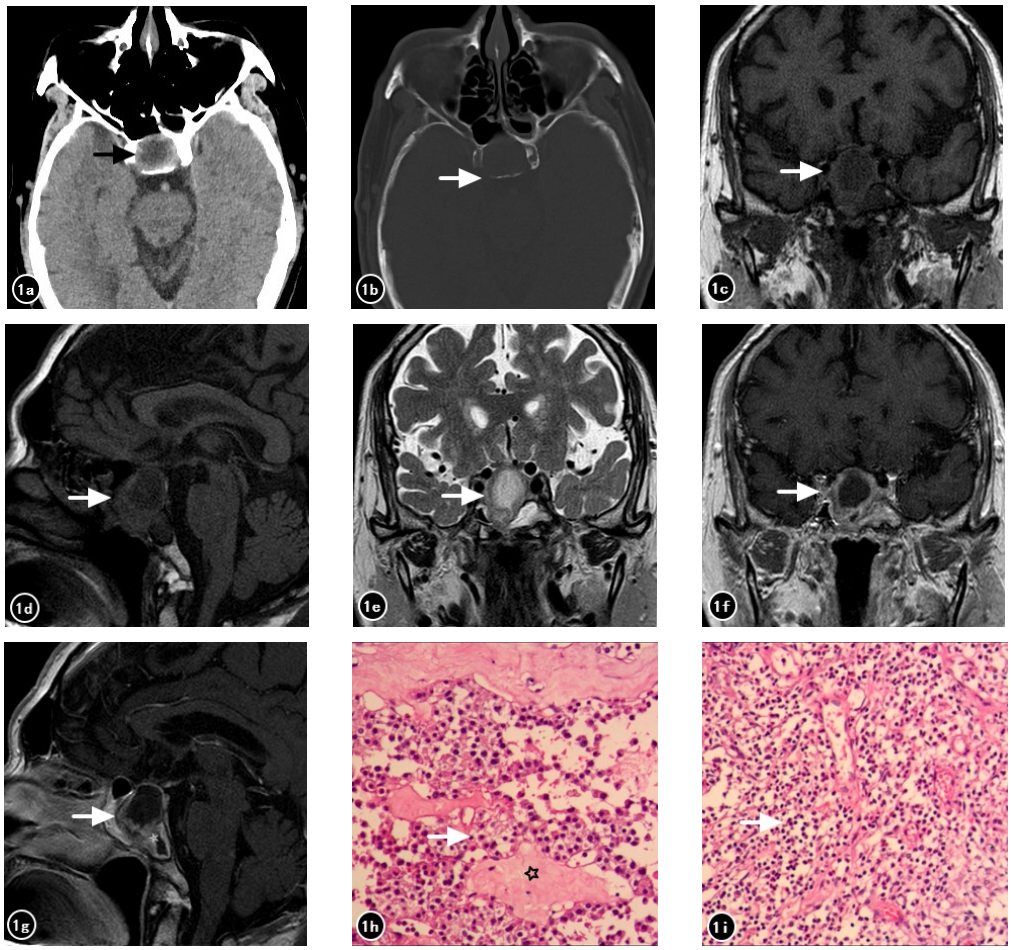

Figure 1. (a)~(b) Axial nonenhanced CT image in brain window and bone window of brain showed an oval mass in the sellar region, with hypoattenuation in the center, annular equal density in the periphery, and bone destruction wasn't seen nearby. (c)~(e) Non contrast enhanced MRI of sella turcica showed enlargement of sella turcica with a 2.5 cm × 2.0 cm × 2.2 cm oval cystic solid mass, sagittal and coronal T1 weighted images show different thickness, annular equal signal intensity is around the mass, small flake hypointensity is in its center, coronal T2 weighted image shows equal signal intensity is around the mass, and hyperintense is in its center. (f)~(g) Contrast enhanced MRI images of sellar on sagittal and coronal showed significantly irregular circular enhancement with delayed and enhancement, enhance is invisible in central area. (h)~(i) pathological pictures. Under the low power microscope, pituitary tissue, fibrous connective tissue , a large number of acute and chronic inflammatory cells with abscess formation can be seen in the mass (HE × 100)

图 1. (a)~(b) 颅脑 CT 脑组织窗及骨窗图示鞍区椭圆形肿块，中心呈低密度影，外周呈环形等密度，邻近无骨质破坏。(c)~(e) 蝶鞍 MRI 平扫图示蝶鞍扩大，鞍区见一大小 2.5 cm × 2.0 cm × 2.2 cm 椭圆形囊实性肿块，矢状位和冠状位 T1 加权像示肿块外周呈厚薄不一环形等信号，中心呈小片状低信号，冠状位 T2 加权像示肿块外周呈等信号，中心呈高信号。(f)~(g) 蝶鞍 MRI 增强矢状位及冠状位图示肿块外周呈明显不规则环形强化伴延迟强化，中心无强化。(h)~(i) 病理图片，低倍显微镜下观肿块内可见垂体组织、纤维结缔组织、大量急慢性炎性细胞伴脓肿形成(HE × 100)

3. 讨论

垂体脓肿(Pituitary abscess, PA)是一种罕见发生于垂体的化脓性炎症，该病最早由 Heslop 于 1848 年首次报道，文献报道多以个案为主，发病率不足 1% [1]。垂体脓肿可发生于任何年龄，中位发病年龄约为 40 岁，女性多见。

垂体脓肿病因主要包括以下四种：① 血行播散：全身其它部位感染或败血症导致病原菌播散入血，进入垂体所致；② 直接蔓延：见于蝶窦炎、脑膜炎、海绵窦栓塞性静脉炎、感染性脑脊液鼻漏等；③ 继发性鞍区病变的感染，如垂体瘤合并垂体脓肿、颅咽管瘤合并垂体脓肿、Rathke 囊肿合并感染等；④ 术

后感染：可见于垂体放疗后或鞍区病变术后感染。根据病因垂体脓肿分为原发性和继发性，其中原发性垂体脓肿是由血源性感染亦或垂体邻近区域感染直接蔓延所致，如败血症、脑膜炎、蝶窦炎等，约占垂体脓肿的 70% [2]，部分无感染证据的垂体脓肿亦归为原发性垂体脓肿。本例垂体脓肿术中并未发现明确感染源，术后回顾性分析推测其病因可能为蝶窦炎直接蔓延所致，符合原发性垂体脓肿诊断。

垂体脓肿致病菌主要为革兰氏阳性菌：如金黄色葡萄球菌、肺炎链球菌、放线菌等，常见于原发性垂体脓肿，亦可发生革兰氏阴性菌以及真菌感染，主要见于继发性垂体脓肿。光镜下垂体脓肿壁可见大量中性粒细胞和巨噬细胞浸润，壁内血管丰富伴管腔扩张充血，甚至可伴有出血；脓液多表现为淡黄色或黄白色脓液，脓液细菌培养极少发现病原菌，文献报道约 60%病例细菌培养呈阴性，因此 Salman 等[3]认为部分垂体脓肿可能为无菌性炎症，是否与抗生素的使用有关还有待考证。

垂体脓肿的临床表现缺乏特异性，不同病因临床表现差异较大[2]。最常见的症状是垂体前叶功能减退和头痛，部分患者可无明确感染症状。实验室检查外周血白细胞计数可正常或升高。本例患者亦无明确感染症状且血常规、血沉、C 反应蛋白均正常，仅表现头昏头痛，与文献报道基本一致。其它临床表现还包括视力视野障碍、眼球运动障碍、脑膜刺激症状、低颅压综合征等[4]。

影像上，垂体脓肿的 CT 和 MRI 表现具有一定的特征性，但诊断缺乏特异性。CT 和 MRI 上，垂体脓肿主要表现为鞍区厚壁或薄壁囊性肿块，因囊内成分不同 CT 密度或 MRI 信号表现多样化，脓肿可表现为类圆形、水滴状、葫芦状或不规则形等，较大者亦可见“束腰征”，酷似囊变的垂体腺瘤，增强脓肿壁呈明显环形强化伴持续强化，内外壁清晰或模糊均可，钙化罕见，往往继发于颅咽管瘤而出现钙化；脓腔偶可见模糊条絮状信号影或液液平面[5]，甚至可见壁结节，增强一般无强化[6]。Taguchi 等[7]认为 DWI 弥散受限是提示垂体脓肿的最特异征象，与脑脓肿极其相似，但部分学者[8]认为 DWI 弥散受限与否并不能明确诊断垂体脓肿，这可能与脓液成分密切相关。垂体脓肿伴随征象与病因相关，主要包括有① 蝶窦炎，表现为蝶窦粘膜增厚或蝶窦积脓；② 颅内感染性病变：包括脑脓肿、脑膜炎、海绵窦血栓性静脉炎、脑脊液鼻漏等；③ 继发性病变：包括垂体瘤、颅咽管瘤、Rathke 囊肿、鞍区术后或放疗后等。其它间接征象还包括蝶鞍扩大、蝶鞍骨质破坏、鞍底下陷、垂体柄偏斜、垂体柄增粗伴强化，视交叉移位、垂体后叶高信号消失、邻近脑膜强化征等。

垂体脓肿罕见且临床表现缺乏特异性，导致该病误诊率较高。垂体脓肿主要须与垂体腺瘤囊变或出血、颅咽管瘤、Rathke 囊肿、IgG4 相关性垂体炎等鉴别。① 垂体腺瘤囊变或出血与垂体脓肿表现极其相似，DWI 弥散受限有一定帮助，此外，垂体瘤多表现相关激素水平升高，与垂体脓肿有所不同。② 颅咽管瘤：常见于鞍上区，鞍内型罕见，约 70%伴有囊壁钙化，原发性垂体脓肿钙化罕见，主要是与继发于颅咽管瘤的垂体脓肿鉴别困难。③ Rathke 囊肿：壁菲薄且增强无强化，受压的垂体往往可寻迹，鉴别相对容易。④ IgG4 相关性垂体炎：表现为垂体增大伴不均匀强化，可伴垂体柄增粗强化，临床上可见血清 IgG 和 IgG4 水平升高，与垂体脓肿不同[9]。其它鉴别诊断还包括垂体转移瘤、垂体结核、鞍区表皮样囊肿以及蛛网膜囊肿等[10]。

综上所述，垂体脓肿的影像学表现具有一定的特征性，鞍区含囊性病变伴均匀环形强化要想到垂体脓肿的可能，DWI 弥散受限对垂体脓肿的诊断及鉴别诊断具有一定意义。了解和熟悉垂体脓肿的临床特征及影像学表现有助于提高垂体脓肿的诊断和鉴别诊断水平。

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