.个案报道.

颅内原发无性细胞瘤伴继发性闭经1例

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【摘要】颅内原发性无性细胞瘤是一种罕见的肿瘤，主要发生在青少年，好发于松果体区和蝶鞍区，其临床表现主要与肿瘤位置、大小相关。大多数生殖细胞瘤对放疗和化疗非常敏感，早期治疗对减少并发症和病死率至关重要。由于其发病率较低，因此目前国内外针对颅内原发无性细胞瘤的诊治还没有一个统一的标准。本文报道一例颅内原发性无形细胞瘤，为20岁女性，因停经9个月入院，行神经内镜下肿瘤切除术，术后病理证实为无性细胞瘤。术后第6周开始“全脑+全脊髓”普通放射治疗，DT 30 Gy×15次（5次/周）；随后，开始“全脑加量”普通放射治疗，DT 24 Gy×12次（5次/周）。病人入院诊断垂体功能减退症后，规律口服醋酸泼尼松及左甲状腺素钠替代治疗，放射治疗完成后3个月，MRI显示鞍区未见明显结节、肿块影，但月经尚未恢复。这提示颅内原发性无性细胞瘤病人早期正确诊治对后期激素紊乱的治疗非常重要。

【关键词】无性细胞瘤；继发性闭经；放射治疗；垂体功能减退

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One case of primary intracranial dysgerminoma with secondary amenorrhea

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【**Abstract**】Primary intracranial dysgerminoma (PID) is a rare tumor, mainly occurring in adolescents, which is usually found in the pineal region and sella region. The clinical manifestations of PID are mainly related to their location and size. Most PIDs are very sensitive to radiation and chemotherapy, and early treatment is essential to reduce morbidity and mortality. Due to the low incidence of this disease, there is no unified standard for the diagnosis and treatment of PID. In this paper, we reported a 20-year old female patient with PID who was admitted to our hospital because of secondary menstrual cessation for 9 months. After admission, neuroendoscopic resection was performed. The patient was confirmed as PID by postoperative pathological examination. The patient was treated with "whole brain + whole spinal cord" general radiotherapy starting from the 6th week after surgery, DT 30Gy×15 times (5 times/week); followed by a "whole brain dose" of ordinary radiation therapy, DT 24 Gy x 12 times (5 times/week). The patient was admitted to hospital and diagnosed with hypopituitarism. After diagnosis, she was treated with prednisone acetate and levothyroxine sodium replacement regularly. Three months after the completion of radiotherapy, MRI showed no obvious nodules or masses in the sella area, but her menstruation did not recovered. This suggests that early correct diagnosis and treatment of patients with PID is very important for the treatment of hormone disorders in the later period.

【**Key words**】Primary intracranial dysgerminoma; Secondary amenorrhea; Radiotherapy; Hypopituitarism

1 病例资料

20岁女性，因停经9个月于2022年10月12日入院。2个月前，病人入院检查显示性激素六项中泌乳素增高（1787.00 mIU/L），其余激素水平均降低；另外，血清人绒毛膜促性腺激素未见明显异常。体格检查：神志清楚，四肢体肌力Ⅳ级，肌张力正常；未发现其他神经系统阳性体征。入院颅脑MRI平扫及增强显示：鞍上、左侧丘脑、侧脑室壁及基底节区内异常信号影，较大的范围约28 mm×24mm，边界尚清楚，形态欠规整，呈稍短T_1、稍长T_2信号，其内见结节状长T_2信号影；增强扫描呈不均匀强化，病灶与垂体分界不清楚，垂体柄显示不清楚（图1A~C）。血清皮质醇水平：8:00为1.70 μg/dl，16:00为1.52 μg/dl。血清甲状腺素水平为41.66 nmol/L，游离甲状腺素水平为5.23 pmol/L。术前诊断垂体功能减退，术前12 d给予醋酸泼尼松替代治疗。于2022年10月27日行神经内镜下颅底病变切除术，术中见病变组织与周围结构粘连较紧密，切除少量病变以进行病理检查。术后病理结果（图2）：送检组织内见异型细胞团巢，免疫组化染色显示肿瘤细胞：Vim（+），CD117（+），OCT-4（+），PLAP（+），SALL4（+），CK（-），CD3（-），CD20（-），CD30（-），EMA（-），GFAP（-），Ki-67（约90%+），提示为无性细胞瘤。术后继续醋酸泼尼松替代治疗并加用左甲状腺素钠治疗。术后10 d，垂体MRI显示：鞍上不规则团块状异常信号影，呈等T_1、等/稍长T_2信号影，信号欠均，边界较清楚（图1D）。术后第6周开始“全脑+全脊髓”普通放射治疗，DT 30 Gy×15次（5次/周）。随后开始“全脑加量”普通放射治疗，DT 24 Gy×12次（5次/周）。放疗至DT 46 Gy×23次后复查头颅MRI显示：鞍上占位较前明显缩小（图

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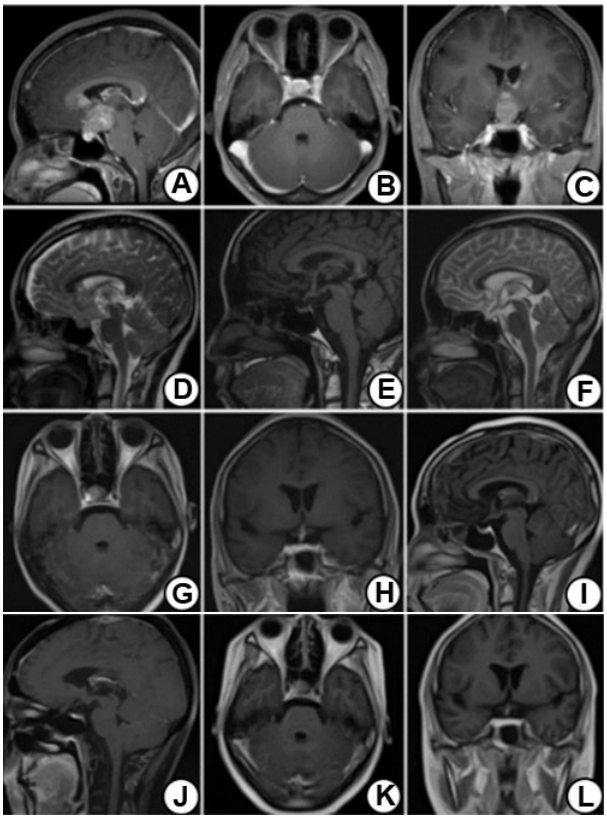

图1 颅内原发无性细胞瘤伴继发性闭经病人手术前后及放疗后影像表现

A~C. 术前MRI增强见鞍上较大异常信号影，呈不均匀强化，病灶与垂体分界不清；D. 术后10 d复查MRI示鞍上术后改变，鞍上见不规则团块状异常信号影，呈等T_1、等/稍长T_2信号影，信号欠均，边界较清，大小约26 mm×28 mm×36 mm；E~H. 放疗至DT 46 Gy×23次后复查MRI示鞍上占位明显缩小；I~L. 放疗完成后3个月复查MRI示鞍区未见明显结节、肿块影，垂体局部强化信号欠均

Figure 1 Imaging findings of a patients with primary intracranial athegioma associated with secondary amenorrhea before and after surgery and radiotherapy

A–C: Preoperative enhanced MRI revealed a large abnormal signal shadow on the saddle, demonstrating uneven enhancement, and an unclear boundary between the lesion and the pituitary gland. D: The MRI perdormed 10 days after surgery showed postoperative changes on the saddle, presenting an irregular mass abnormal signal shadow with isoT_1, iso/slightly long T_2 signals. The signal was uneven, but the boundary was clear. The size measured approximately 26 mm×28 mm×36 mm. E–H: Subsequent MRI following radiotherapy at a dose of DT 46 Gy×23 times demonstrated a significant reduction in space occupancy on the saddle area. I–L: MRI performed 3 months after completing radiotherapy showed no obvious nodules or mass shadows in the saddle area. However, local enhanced signals of the pituitary gland appeared to be uneven.

1E~H）。复查血清促肾上腺皮质激素（8:00）<1.00 pg/ml，三碘甲状腺氨酸0.53 nmol/L，甲状腺素39.10 nmol/L，游离三碘甲状原氨酸1.50 pmol/L，游离甲状腺素4.59 pmol/L。放射治疗完成后3个月，复查MRI，鞍区未见明显结节、肿块影（图1I~L）；复查性激素六项中泌乳素为1536.00 IU/L，其余激素水平仍低于正常值；另外，血清游离甲状腺素水平为8.44 pmol/L。病人继续醋酸泼尼松及左甲状腺素钠替代治疗，但月经仍未恢复。

图2 无性细胞瘤术后病理表现（HE染色，×200）

Figure 2 Pathological characteristics of dysgerminomas (HE staining, ×200)

2 讨 论

无性细胞瘤是卵巢常见的恶性原始生殖细胞肿瘤，约占所有卵巢恶性肿瘤的2%[1]。性腺外生殖细胞瘤通常发生在中线位置，如纵隔、腹膜后、大脑的松果体和鞍上区域[2,3]。原发性颅内生殖细胞肿瘤是一种罕见的肿瘤，主要发生在青少年，大多数病人的年龄在20岁以下[4]。颅内生殖细胞瘤的临床症状取决于肿瘤的大小和位置[5]。松果体生殖细胞肿瘤因其常引起颅内压升高，故病人多表现为神经系统症状。鞍上生殖细胞肿瘤常伴有内分泌异常，如尿崩症、生长迟缓、性早熟、继发性闭经等[6,7]。本文病例出现继发性闭经、垂体功能减退及泌乳素升高，这些症状可能与肿瘤侵犯鞍上压迫垂体有关。

无性细胞瘤治疗的重点是降低复发率和延长生存期[8]。颅内生殖细胞瘤有可能通过放射治疗治愈，单独放疗后5年的生存率高达90%[9,10]。目前，颅脑脊髓放疗、全脑室放疗、全脑放疗逐渐取代局部放疗，但由于认知功能障碍和激素功能紊乱等放疗后遗症，故减少辐射剂量是必要的[11]。因此，越来越多的医疗中心采用顺铂化疗联合放疗[12,13]，与单独放疗相比，放化疗联合方案可提高疗效，减少放疗剂量和放疗靶区，进而减少放疗后遗症[13–15]。

颅内原发性无性细胞瘤临床少见，目前尚缺乏高级循证医学证据以指导其诊治，常借鉴颅内生殖细胞瘤的治疗经验。鞍上无性细胞瘤病人早期正确诊治对后期激素紊乱的治疗非常重要，如果治疗不及时，激素紊乱有可能会持续一生[7]。本文病例放疗结束后3个月复查MRI显示肿瘤组织消

失，符合此类肿瘤对放疗敏感的特征，但垂体内分泌功能及月经尚未恢复，很可能与未及时正确诊治从而影响垂体功能恢复有关，同时也不排除可能是放疗对垂体的辐射损伤。

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