

青年慢性硬膜下血肿的临床诊治分析

左大辉 蒋太鹏 何嘉滨 林恒州 王建中

【摘要】目的 探讨青年(14~44岁)慢性硬膜下血肿(CSDH)的临床特点、治疗方法及疗效。**方法** 回顾性分析2011年1月至2022年12月收治的38例青年CSDH的临床资料。**结果** 38例中,男32例,女6例;合并蛛网膜囊肿15例、凝血因子Ⅷ活性下降1例、Ⅺ因子活性下降1例;因脑积水行脑室-腹腔分流术2例;长期高血压病史2例;急性硬膜下血肿转化成CSDH有2例;15例无其它疾病。1例合并凝血因子Ⅷ活性下降,未行手术治疗且自动出院后失访;其余37例行钻孔引流术治疗,其中28例一次手术即治愈,9例首次术后复发(再次手术4例,保守治疗5例);1例术中即见脑组织完全回复,4例术后3 d内脑组织完全回复,17例术后7 d~1个月内脑组织完全回复,5例术后1个月后脑组织完全回复;术后随访1~12年,未再复发,正常生活。**结论** 青年CSDH以男性多见,常合并有其它疾病(蛛网膜囊肿、凝血功能障碍等);治疗首选钻孔引流术,预后良好,但需重视合并疾病的治疗;合并有蛛网膜囊肿者,术后再出血率高,如无颅内压增高,可采用随访观察。

【关键词】 慢性硬膜下血肿;青年人;临床特征;蛛网膜囊肿
【文章编号】 1009-153X(2023)09-0559-04 **【文献标志码】** A **【中国图书资料分类号】** R 651.1*5

Clinical characteristics and treatment of patients (aged 14 to 44 years) with chronic subdural hematoma
ZUO Da-hui, JIANG Tai-peng, HE Jia-bin, LIN Heng-zhou, WANG Jian-zhong, Department of Neurosurgery, The Second Shenzhen People's Hospital/The First Affiliated Hospital of Shenzhen University, Shenzhen 518035, China

【Abstract】 Objective To investigate the clinical characteristics, and treatment and its curative effectiveness of chronic subdural hematoma (CSDH) in patients aged 14 to 44 years. **Methods** The clinical data of 38 patients (age, 14~44 years) with CSDH who were admitted to our hospital from January 2011 to December 2022 were retrospectively analyzed. **Results** Of these 38 patients, 32 were male and 6 female. Fifteen patients had arachnoid cyst, 1 had decreased activity of coagulation factor Ⅷ, and 1 had decreased activity of factor Ⅺ. Two patients underwent ventriculoperitoneal shunt due to hydrocephalus. Two patients had hypertension. Acute subdural hematoma converted to CSDH in 2 patients. Fifteen patients had no comorbidities. One patient with decreased activity of coagulation factor Ⅷ received conservative treatment and was automatically discharged to lost follow-up. Burr hole drainage (BHD) was performed in the other 37 patients, of whom 28 patients were cured after one operation, and 9 recurred after the first operation (4 received BHD again, 5 conservative treatment). Complete brain tissue recovery was observed in 1 patient during the operation, in 4 patients within 3 days after the operation, in 17 patients within 7 d~1 month after the operation, and in 5 patients within 1 month after the operation. Postoperative follow-up (range, 1~12 years) showed no recurrence in the 37 patients with normal life. **Conclusions** CSDH is more common in young men, and is often complicated with other diseases (arachnoid cyst, coagulation dysfunction, etc.). The first choice of treatment is the BHD, which can achieve a good prognosis, but attention should be paid to the treatment of the comorbidities. Patients with arachnoid cysts have a high rate of rebleeding after BHD. If patients have no intracranial hypertension, follow-up observation can be used.

【Key words】 Chronic subdural hematoma; Clinical characteristics; Young people; Arachnoid cyst.

慢性硬膜下血肿(chronic subdural hematoma, CSDH)多发生于老年人,青年人少见。2011年1月至2022年12月收治38例青年CSDH,现结合相关文献分析总结如下。

1 资料与方法

1.1 病例选择标准 CSDH诊断明确;年龄14~44岁;性别不限。

1.2 研究对象 本文纳入符合标准的青年CSDH共38例,其中男32例,女6例;14~20岁4例,21~30岁8例,31~40岁17例,41~44岁9例;血肿均位于额顶(颞)部,双侧12例,单侧26例。合并蛛网膜囊肿15例,其中大囊肿5例,小囊肿10例;颞极11例,额叶1例,枕部3例;10例颞极蛛网膜囊肿在血肿侧且关系紧密,1例颞极蛛网膜囊肿位于血肿对侧,3例枕部蛛网膜囊肿位于额顶部。合并凝血因子Ⅷ活性下降1例、Ⅺ因子活性下降1例。曾因脑积水行脑室-腹腔分流术2例。长期高血压病史2例。急性硬膜下血肿转化成慢性血肿2例。24例发病前3周~4个月有明确头部外伤或剧烈运动史,14例无明显诱因。

35 例有头痛,其中伴嗜睡 1 例、头晕 10 例、肢体肌力下降 2 例;2 例只有头晕;1 例脑积水脑室-腹腔分流术后复查头颅 CT 发现,无症状。

1.3 影像学表现 术前均行头 CT 检查,血肿表现为低密度 12 例,等密度 3 例,偏高密度 6 例,混杂高低密度 17 例。27 例行 MRI 检查未见肿瘤等;4 例行脑血管造影未见异常;3 例行 CTA 检查未见异常。

1.4 治疗方法 1 例合并凝血因子Ⅷ活性下降,未行手术且自动出院;其余 37 例行手术治疗。2 例合并蛛网膜囊肿行囊肿开窗后留置引流管外引流;其余 35 例在血肿最厚处行钻孔引流(单孔或双孔)。术中予生理盐水冲洗干净,其中 2 例术中即见脑组织完全回复良好,未留置引流管;其余 35 例留置硬膜下引流管引流 2~7 d,无明显血性液流出后拔管。

2 结果

1 例未手术失访;28 例一次手术即治愈(图 1),9 例首次术后复发(再次手术 4 例,保守治疗 5 例)。

术后脑组织回复情况:1 例术中即见脑组织完全回复;4 例术后 3 d 内脑组织完全回复;17 例术后 7 d~1 个月内脑组织完全回复;5 例术后 1 个月后脑组织完全回复。

37 例术后随访 1~12 年,未再复发,正常生活。

3 讨论

CSDH 好发于老年人,以额顶部多见。目前,CSDH 较公认的发病机制是病人存在脑萎缩基础,轻微头部外伤是诱发因素,颅顶表面桥静脉损伤出血后刺激形成包膜,包膜内血肿抗凝血活性增强刺激包膜表面毛细血管渗出,形成恶性循环,促使血肿进行性增大。CSDH 主要以钻孔引流术治疗为主,也有行神经内镜治疗、小骨窗手术治疗、开颅大骨瓣手术、脑膜中动脉栓塞^[1]、口服阿托伐他汀钙^[2]/地塞米松^[3]等治疗,效果及预后一般良好。

本文以青年 CSDH 为研究对象,其中约 63% 有明确脑外伤或剧烈运动史,几乎均有头痛,男性明显多于女性。与老年 CSDH 不一样,约 60% 的青年 CSDH 合并有其它可致病原因,包括:蛛网膜囊肿、凝血因子活性下降、脑室-腹腔分流术、急性硬膜下血肿演变成 CSDH 等,还有肾功能衰竭透析^[4]、血小板减少紫癜^[5]、酒精中毒^[6]、肝病^[6]、凝血因子 XⅢ(FXⅢ)缺乏^[7]、凝血因子Ⅶ缺乏^[8]、凝血因子 V 缺乏^[9]、低颅内压^[5,6,10]、血管畸形^[9]。本文病例 37 例采用钻孔引流术,治疗效果相差不一,其中急性血肿转化而来病人预后最好;单纯性青年 CSDH 的脑组织回复时机、复发率与我院同期中老年 CSDH 病人相似,可能

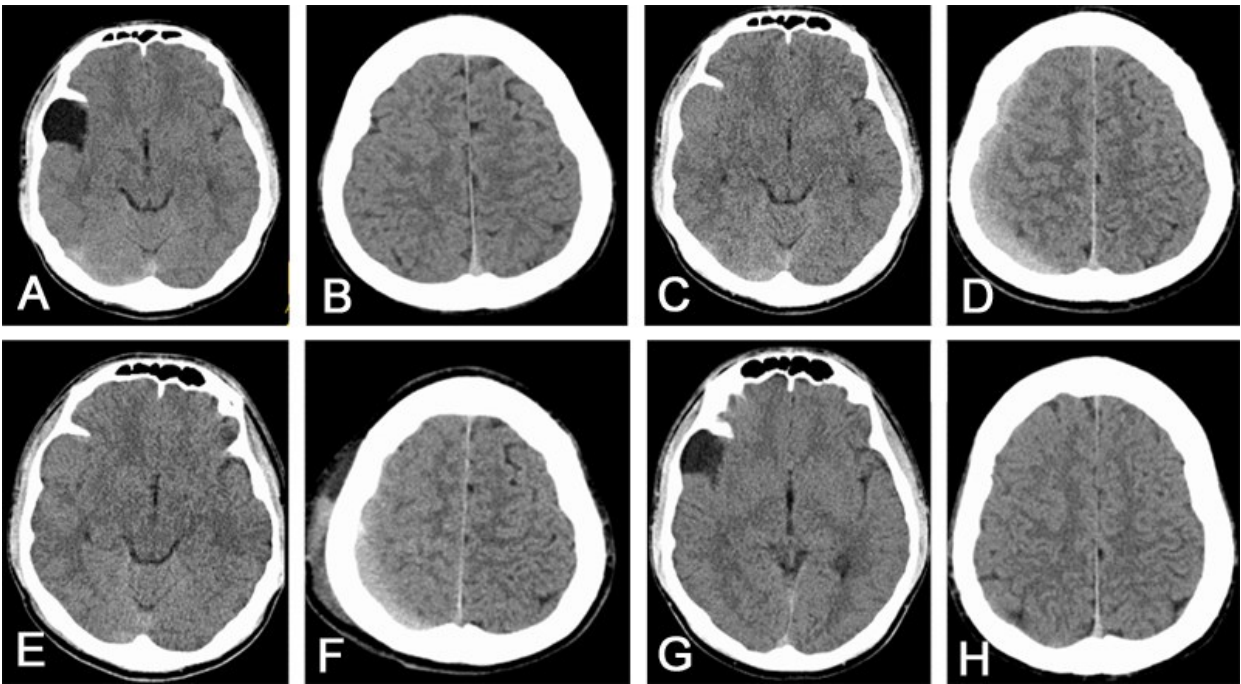


图1 16岁男性打篮球伤及头部后CT影像表现

A、B. 伤后当天头颅CT见右侧额部蛛网膜囊肿,未见硬膜下血肿;C、D. 伤后2个月头颅CT见右侧额部囊肿内稍高密度血肿,右侧额顶部硬膜下稍高密度血肿,厚度约10 mm,血肿量约250 ml;E、F. 右侧额顶部硬膜外血肿钻孔引流术后2 d复查CT,血肿未完全消失;G、H. 术后1个月复查CT见血肿完全消失,囊肿仍存在

与此类病人也存在不同程度脑萎缩有关;存在凝血因子活性下降病人,围手术期如补充足够凝血因子则预后较好^[7,8];有分流手术史病人术后早期调高分流泵压力预后也较好^[11];而合并有蛛网膜囊肿者,术后脑组织回复率差、复发率高^[12]。

颅内蛛网膜囊肿为先天性病变,可自发或因为外伤诱发,继发性形成CSDH。文献[13]报道颅内蛛网膜囊肿发生率在0.1%~4.6%,多发生在年轻人。Mori等^[14]报道青少年CSDH合并蛛网膜囊肿的比例在62.5%;而且,与囊肿的大小无关^[4,5,12,14]。本文10例小囊肿,5例大囊肿,其中3例囊肿位于枕部,1例位于血肿对侧;而CSDH均位于额顶或额颞顶部,男性仍明显多于女性。其具体发生机制目前仍不清楚。Takayasu等^[15]对2例CSDH合并蛛网膜囊肿的病人行开颅手术治疗时,发现血肿外膜有新生毛细血管存在,而囊肿壁未见有毛细血管。Kwak等^[16]对12例未并发出血的蛛网膜囊肿病人行开颅手术治疗时,其中4例囊肿壁与硬脑膜之间存在桥静脉,囊肿壁有细小血管跨越,损伤这些小血管则可引起渗血。因大多蛛网膜囊肿本身不需要外科干预,且手术有一定风险(如再出血等),故目前国内外学者多主张只行创伤及风险较小的钻孔引流术^[4-8,17],而不处理蛛网膜囊肿^[11,13-15]。也有行开颅硬膜下血肿清除和(或)蛛网膜囊肿切除术或开窗术^[18],或二期行蛛网膜囊肿分流术、脑膜中动脉栓塞治疗^[19]。对于血肿复发的病人,无需急于再次钻孔或者行针对囊肿的手术,可定期随访观察^[11,12]。本文2例小骨窗手术清除血肿后行囊肿开窗术(1例术后1个月再次出血;1例术后2个月再次出血,观察半年后血肿消失)。13例行血肿钻孔引流术,3例再出血(1例经观察1月后消失;1例术后1月囊肿及硬膜下再出血,予再行硬膜下血肿钻孔引流术,术后囊肿未再出血,但硬膜下仍有出血,予观察1月后消失;1例术后中线回位差,观察2个月后再在外院再行囊肿开窗术,半年后中线才逐渐回位)。

总之,青年CSDH首选钻孔引流术,预后良好;其常合并其它诱发原因,需仔细询问病史,以防遗漏,需重视合并疾病的治疗。合并有蛛网膜囊肿者,术后再出血率高,如无颅内压增高,可随访观察。

【参考文献】

[1] KAN P, MARAGKOS GA, SRIVATSAN A, *et al.* Middle meningeal artery embolization for chronic subdural hema-

toma: a multi-center experience of 154 consecutive embolizations [J]. *Neurosurgery*, 2021, 88(2): 268-277.

[2] HE C, XIA P, XU J, *et al.* Evaluation of the efficacy of atorvastatin in the treatment for chronic subdural hematoma: a meta-analysis [J]. *Neurosurg Rev*, 2021, 44(1): 479-484.

[3] ZHAO Y, XIAO Q, TANG W, *et al.* Efficacy and safety of glucocorticoids versus placebo as an adjuvant treatment to surgery in chronic subdural hematoma: a systematic review and meta-analysis of randomized controlled clinical trials [J]. *World Neurosurg*, 2022, 159: 198-206.

[4] KWAK YS, HWANG SK, PARK SH, *et al.* Chronic subdural hematoma associated with the middle fossa arachnoid cyst: pathogenesis and review of its management [J]. *Childs Nerv Syst*, 2013, 29(1): 77-82.

[5] TAKIZAWA K, SORIMACHI T, HONDA Y, *et al.* Chronic subdural hematomas associated with arachnoid cysts: significance in young patients with chronic subdural hematomas [J]. *Neurol Med Chir (Tokyo)*, 2015, 55(9): 727-734.

[6] MISSORI P, MARAGLINO C, TARANTINO R, *et al.* Chronic subdural haematomas in patients aged under 50 [J]. *Clin Neurol Neurosurg*, 2000, 102(4): 199-202.

[7] ALBANESE A, TUTTOLOMONDO A, ANILE C, *et al.* Spontaneous chronic subdural hematomas in young adults with a deficiency in coagulation factor X III. Report of three cases [J]. *J Neurosurg*, 2005, 102(6): 1130-1132.

[8] DOBRAN M, IACOANGELI M, SCORTICHINI AR, *et al.* Spontaneous chronic subdural hematoma in young adult: the role of missing coagulation facto [J]. *G Chir*, 2017, 38(2): 66-70.

[9] MEIDERT AS, KINZINGER J, MÖHNLE P, *et al.* Perioperative management of a patient with severe factor V deficiency presenting with chronic subdural hematoma: a clinical report [J]. *World Neurosurg*, 2019, 127: 409-413.

[10] HOU K, LI CG, ZHANG Y, *et al.* The surgical treatment of three young chronic subdural hematoma patients with different causes [J]. *J Korean Neurosurg Soc*, 2014, 55(4): 218-221.

[11] OU Y, DONG J, WU L, *et al.* The clinical characteristics, treatment, and outcomes of chronic subdural hematoma in young patients [J]. *World Neurosurg*, 2019, 125: e1241-e1246.

[12] WU X, LI G, ZHAO J, *et al.* Arachnoid cyst-associated chronic subdural hematoma: report of 14 cases and a systematic literature review [J]. *World Neurosurg*, 2018, 109:

e118-e130.

[13] WESTER K, HELLAND CA. How often do chronic extra-cerebral haematomas occur in patients with intracranial arachnoid cysts [J]? J Neurol Neurosurg Psychiatry, 2008, 79(1): 72-75.

[14] MORI K, YAMAMOTO T, HORINAKA N, *et al.* Arachnoid cyst is a risk factor for chronic subdural hematoma in juveniles: twelve cases of chronic subdural hematoma associated with arachnoid cyst [J]. J Neurotrauma, 2002, 19(9): 1017-1027.

[15] TAKAYASU T, HARADA K, NISHIMURA S, *et al.* Chronic subdural hematoma associated with arachnoid cyst: two case histories with pathological observations [J]. Neurol Med Chir (Tokyo), 2012, 52(2): 113-117.

[16] KWAK YS, HWANG SK, PARK SH, *et al.* Chronic subdural hematoma associated with the middle fossa arachnoid cyst:

pathogenesis and review of its management [J]. Childs Nerv Syst, 2013, 29(1): 77-82.

[17] MAO X, XU L, LIU W, *et al.* Local skull thinning is one of risks for the ruptured arachnoid cysts with chronic subdural hematoma in adults: thirty-two clinical reports [J]. J Craniofac Surg, 2022, 33(2): e102-e105.

[18] ZUCKERMAN SL, PRATHER CT, YENGO-KAHN AM, *et al.* Sport-related structural brain injury associated with arachnoid cysts: a systematic review and quantitative analysis [J]. Neurosurg Focus, 2016 Apr, 40(4): E9.

[19] MARNAT G, JECKO V, GARIEL F, *et al.* Embolization as adctive treatment to achieve complete cure of ruptured arachnoid cyst associated with chronic subdural hematoma [J]. Br J Neurosurg, 2023, 37(1): 104-107.

(2023-04-07 收稿, 2023-08-09 修回)

(上接第 558 页)

[3] WIJNENGA MMJ, MATTNI T, FRENCH PJ, *et al.* Does early resection of presumed low-grade glioma improve survival: a clinical perspective [J]. J Neurooncol, 2017, 133(1): 137-146.

[4] RECHT LD, LEW R, SMITH T. Suspected low-grade glioma: is deferring treatment safe [J]? Ann Neurol, 1992, 31(4): 431-436.

[5] 张庆浩, 段文超, 刘献志, 等. 无症状 WHO II 级脑胶质瘤的疾病特征和术后生存分析[J]. 中华神经外科杂志, 2020, 36(4): 405-409.

[6] POTTS MB, SMITH JS, MOLINARO AM, *et al.* Natural history and surgical management of incidentally discovered low-grade gliomas [J]. J Neurosurg, 2012, 116(2): 365-372.

[7] IUS T, CESSSELLI D, ISOLA M, *et al.* Incidental low-grade gliomas: single-institution management based on clinical, surgical, and molecular data [J]. Neurosurgery, 2020, 86(3): 391-399.

[8] ALLISON C M, SHUMON S, STUMMER W, *et al.* A cohort analysis of truly incidental low-grade gliomas [J]. World Neurosurg, 2022, 159: e347-e355.

[9] OPOKU-DARKO M, EAGLES ME, CADIEUX M, *et al.* Natural history and growth patterns of incidentally discovered diffusely infiltrating low-grade gliomas: a volumetric study [J]. World Neurosurg, 2019, pii: S1878-8750.

[10] GUI C, KOSTENIUK SE, LAU JC, *et al.* Tumor growth

dynamics in serially-imaged low-grade glioma patients[J]. J Neurooncol, 2018, 139(1): 167-175.

[11] GOGOS AZJ, YOUNG JS, PEREIRA MP, *et al.* Surgical management of incidentally discovered low-grade gliomas [J]. J Neurosurg, 2020, 135(2): 480-487.

[12] PALLUD J, CAPELLE L, TAILLANDIER L, *et al.* The silent phase of diffuse low-grade gliomas: is it when we missed the action [J]? Acta Neurochir (Wien), 2013, 155(12): 2237-2242.

[13] DUFFAU H. Awake surgery for incidental WHO grade II gliomas involving eloquent areas [J]. Acta Neurochir (Wien), 2012, 154(4): 575-584.

[14] LIMA GLO, DEZAMIS E, CORNS R, *et al.* Surgical resection of incidental diffuse gliomas involving eloquent brain areas: rationale, functional, epileptological and oncological outcomes [J]. Neurochirurgie, 2017, 63(3): 250-258.

[15] NG S, HERBET G, MORITZ-GASSER S, *et al.* Return to work following surgery for incidental diffuse low-grade glioma: a prospective series with 74 patients [J]. Neurosurgery, 2020, 87(4): 720-729.

[16] COCHEREAU J, HERBET G, RIGAU V, *et al.* Acute progression of untreated incidental WHO Grade II glioma to glioblastoma in an asymptomatic patient [J]. J Neurosurg, 2016, 124(1): 141-145.

(2023-05-06 收稿, 2023-07-31 修回)