

. 个案报道 .

星座链球菌致颅内多发感染并脑脓肿形成 1 例

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【摘要】颅内感染在临床上并不少见,具有较高的病死率和致残率,治疗面临严峻挑战。颅内感染病原学检测及培养阳性率低,大多数治疗主要结合病史、临床症状、脑脊液细胞学早期诊治,其结果也是各具差异性。星座链球菌是一种条件致病菌,引起颅内感染及脑脓肿形成极其罕见。本文报道 1 例星座链球菌致颅内多发感染并脑脓肿形成,根据药敏试验结果给予敏感抗生素治疗痊愈。临床上,应结合病人具体情况,加强多学科合作,早诊断,早治疗。

【关键词】颅内感染;脑脓肿;诊断;治疗

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A case report of multiple intracranial infections and brain abscess formation secondary to streptococcus constellatus

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【Abstract】Intracranial infections are not uncommon in clinic and are associated with high mortality and morbidity rates, posing significant therapeutic challenges. The etiological detection and culture positivity rates for intracranial infections are often low, leading most treatments to rely on a combination of medical history, clinical symptoms, and cerebrospinal fluid cytology for early diagnosis and management, with variable outcomes. Streptococcus constellatus is a conditional pathogen that rarely causes intracranial infections and brain abscess formation. This case report describes a patient with multiple intracranial infections and brain abscesses caused by Streptococcus constellatus, successfully treated with targeted antibiotic therapy based on drug susceptibility testing. Clinically, it is essential to tailor treatment approaches to individual patient circumstances and enhance multidisciplinary collaboration to achieve timely diagnosis and effective management.

【Key words】Intracranial infection; Brain abscess; Diagnosis; Treatment

1 病例资料

48 岁男性,因头痛、呕吐伴发热 10 d 于 2022 年 12 月 18 日入院。入院体格检查:神志模糊,GCS 评分 10 分;双侧瞳孔等大、等圆,直径 3 mm,对光反射迟钝;脑膜刺激征阳性;四肢肌力约 4 级,肌张力稍高;右侧下肢病理征阳性。入院头部 CT 显示左侧额叶可见斑片状低密度影,脑室系统扩大,急性脑积水(图 1A~C)。入院当天急诊行右侧脑室外引流术,术中可见无色稍混浊脑脊液流出,压力较高,留取脑脊液标本送检。术后 1 d,复查 MRI 示左侧额叶可见环形明显强化影,周围可见大片状无强化区,同时可见强化部位与脑室沟通,第四脑室、侧脑室、环池及鞍上池边缘可见明显线状强化(图 1D~I)。考虑颅内感染,立即给予万古霉素+美罗培南+替硝唑抗感染治疗。术后 3 d 脑脊液培养+药敏示:星座链球菌;对万古霉素及左氧氟沙星敏感。立即停用美罗培南,更换抗生素为万古霉素+左氧氟沙星+替硝唑继续抗感染治疗;替硝唑使用 1 周后停用,并拔除脑室外引流管;左氧氟沙星使用 2 周后停用,万古霉素使用 1 个月后停用,并过渡为口服利奈唑胺片剂后出院。出院时,神志清楚,四肢肌力正常,脑膜刺激

征阴性,双侧下肢病理征阴性。出院 3 个月随访,复查 MRI 显示感染范围较前缩小(图 1J~L),一般情况良好。

2 讨论

作为米勒链球菌群的重要一员,星座链球菌可导致全身各器官的化脓性炎症^[1-5]。其多分布与外界相通的器官或组织,属于条件致病菌^[6]。文献报道,星座链球菌感染可引起肺脓肿、脓胸、肝脓肿、胸锁关节炎、腹膜炎、败血症等,但颅内星座链球菌感染极其罕见^[7],可能原因包括其在需氧环境中生长较差,需在厌氧环境或体积为 5% 的 CO₂ 环境中才能生长迅速^[8],临床中检验科室容易忽略对此类菌群的检测;且大部分抗生素对该菌群敏感,目前抗生素的滥用导致培养阳性率较低,可能也是该菌群感染报道较少的原因之一。颅内感染的脑脊液培养结果阳性率不高,大多数主要结合临床表现、影像学、相关血检验指标来做出诊断及进行后续治疗。初步诊断是很重要的,部分病例可能会误诊为肿瘤性病变或颅内血肿吸收期等,应加强与相关疾病的鉴别。本文病人入院时存在颅内压增高症状,同时高热、脑膜刺激征阳性,考虑感染可能性大;同时,头部 CT 显示急性脑积水,急诊行脑室外引流术,术中脑脊液浑浊,并结合术后 1 d 头部 MRI,初步考虑为颅内感染及脑脓肿形成,遂立即给予万古霉素及美罗培南抗感染治疗,同时加用替硝唑兼顾厌氧菌感染。术后脑脊液

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培养结果阳性,并依据药敏结果选用敏感抗生素继续抗感染治疗,症状逐步好转,并逐步过渡为口服抗感染药物后好转出院。因此,对发热同时存在颅内压增高者,应警惕颅内感染可能。

文献报道,星座链球菌导致脑脓肿的抗感染疗程一般为 5~12 周^[8]。本文病例抗感染治疗 3 个月,符合大多数脑脓肿的治疗周期,随访发现感染好转,症状明显好转,但感染持续存在,考虑血脑屏障及脓肿壁对抗菌药物的穿透性有关^[9]。此外,脑脓肿已形成并播散于脑脊液循环,可能是导致感染

恢复较慢的原因,有待进一步随访观察。因此,临床应加强对星座链球菌的重视。此外,临床上,应结合病人具体情况,加强多学科合作,早诊断,早治疗,贻误病情。

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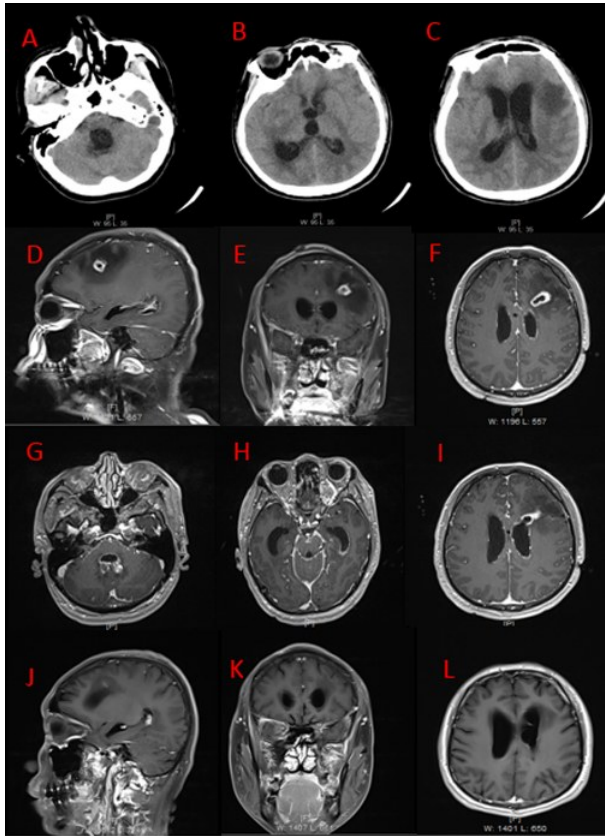


图1 星座链球菌致颅内多发感染并脑脓肿形成的影像学表现
A~C. 术前头部CT显示第四脑室扩张,急性脑积水,左侧额叶不规则低密度影;D~I. 脑室外引流术后头部MRI显示左侧额叶环形强化灶,周边大片水肿,且病灶与脑室沟通,地四脑室、环池等多发强化影;J~L. 抗生素治疗3个月复查MRI显示强化灶基本消失,周边轻度水肿

Figure 1 Imaging manifestations of a patient with multiple intracranial infections and brain abscess formation caused by Streptococcus constellatus
A~C: Preoperative head CT reveals dilation of the fourth ventricle, acute hydrocephalus, and an irregular hypodense lesion in the left frontal lobe. D~I: Post-external ventricular drainage MRI demonstrates a ring-enhancing lesion in the left frontal lobe with surrounding extensive edema and communication between the lesion and the ventricular system, as well as multiple enhancing foci in the fourth ventricle and ambient cistern. J~L: Follow-up MRI after 3 months of antibiotic therapy shows near-complete resolution of the enhancing lesion with mild residual perilesional edema.