Cerebellar abscess case reports

2023

A 28-year-old woman who presented with a four-month history of progressive, asymmetric, bilateral painless vision loss. Her past medical history was significant for systemic lupus erythematosus. Notably, she had been on a high dose of prednisone for her immunosuppressive regimen. Brain MRI showed numerous contrast-enhancing lesions scattered throughout bilateral cerebral and cerebellar hemispheres and brainstem. She underwent a brain biopsy, and infection with Bartonella henselae was confirmed via a polymerase chain reaction. The patient was started on doxycycline and rifampin with improvement in vision and resolution of lesions as confirmed by a follow-up brain MRI. The literature review did not reveal any cases of multiple brain abscesses due to central nervous system Bartonella. The case report aims to promote consider Bartonella infection as a cause of multiple brain abscesses in immunocompromised patients. It is essential to note that Bartonella can imitate other central nervous system infections, including toxoplasmosis, cryptococcosis, cysticercosis, and tuberculomas. Early identification is crucial as prompt treatment can lead to a complete cure [1)]

2022

Cerebellar Abscess due to Listeria Monocytogenes in an Elderly Patient with Ulcerative Colitis [2)].

The patient presented with complaints of headache, yellow-colored discharge from ear, fever and vomiting. The patient's Glasgow Coma Scale (GCS) was 12/15, neck stiffness and positive Kernig's sign, horizontal nystagmus and exaggerated deep tendon reflexes. Positive CSF findings and Magnetic Resonance Imaging showing right sided cerebellar abscesses, led to the diagnosis of right-sided CSOM leading to cerebellar brain abscess. Patient was treated with anti-pyrectics, intravenous mannitol, IV and topical antibiotics and IV-dexamethasone. Abscess evacuation was performed in neurosurgery department while mastoidectomy was performed in ENT department. Patient's condition improved quickly and was discharged with regular follow-up.

Discussion: CSOM is a long-standing middle ear infection, associated with ear discharge and permanent perforation of the tympanic membrane. Divided into two main types, a) Tubo tympanic b) Atticoantral. CSOM occasionally presents with severe intracranial complications, especially in developing countries.

Conclusion: CSOM is a chronic inflammation of the middle ear. Without early and effective management, it can lead to serious intracranial complications. So, diagnosis of complications like cerebellar abscess should be on the differential while dealing with patients with CSOM in developing countries [3)].

2021

A 5-year-old boy who presented with features of raised intracranial pressure and was diagnosed to have a cerebellar lesion causing hydrocephalus. An emergency surgical decompression was performed and the histopathological examination revealed that the lesion was suggestive of tubercular abscess. The postoperative scan revealed adequate decompression of the lesion with no adverse events and resolution of hydrocephalus. The child recovered without any neurological deficits and anti-tuberculous treatment was continued for one year, but was subsequently lost to follow-up [4].

2018

Cerebellar Abscess Caused by Extension of an Otogenic Infection Through the Labyrinth and Internal Auditory Canal [5].

Yasutake et al. report a case of cerebellum abscess due to Fusobacterium nucleatum in a 60-year-old man. He was admitted to the hospital complaining of headache and dizziness. On admission, he was lucid with the following vital data:blood pressure, 136/89 mmHg;heart rate, 65 beats/min;body temperature, 37.0℃;and oxygen saturation, 100%. He had a moderate headache and could not walk straight. In general, there were no abnormal findings except for his poor dental hygiene. Laboratory findings revealed elevated white blood cell counts(10,900/mm3)and brain MRI revealed a mass shadow that was suspected to be an abscess in the left side of his cerebellum. Elective surgery was scheduled. However, consciousness of disorder was observed on the second hospital day and the size of mass shadow extended;hence, emergent drainage under craniotomy was performed. The diagnosis was cerebellum abscess, and F. nucleatum, which is a normal flora in the oral cavity, was isolated in his cerebellum abscess. After the surgery, his hospital course was positive under the treatment of antibiotics for F. nucleatum. The route of bacterial infection entry was unclear;however, it will be considered that abscesses in the central nervous system occur because of poor dental hygiene [6].

A 45-year-old woman with mastectomy. She had chemotherapy after surgery and had blood stem cell transplantation because of pancytopenia. Two months after treatments, MRI was performed on the development of ataxia and a cerebellar abscess was detected. The abscess was surgically excised and local amphotericin B was applied. She is stil alive and neurologically stable after 14 years of surgical treatment. In intracranial aspergillosis, intracavitary amphotericin B therapy may be used as an adjunct after the surgical excision of abscess. This procedure may contributes to the regression of abscess or prevention of the recurrence. But comparative clinical studies are needed for more accurate conclusions [7].

2017

Streptococcus constellatus, a coccus from the normal genital, oral and gastrointestinal flora, has a tendency to form abscesses, but not to cause infective endocarditis (IE). Also, S. constellatus is an extremely rare causative agent of brain abscess. We report the case of a woman with a colorectal tumour who presented with IE and cerebellar abscesses due to a S. constellatus bacteraemia [8].

2013

A 52-year-old man who had undergone orthotopic liver transplantation (OLT) for end-stage liver disease and hepatocellular carcinoma secondary to chronic hepatitis, and who developed a cerebellar abscess (CA) from Listeria monocytogenes. Three months after transplantation, he presented with a 1-week history of headache and vomiting. Computed tomography scan of the brain revealed a space-occupying lesion in the right cerebellum, which was further confirmed by magnetic resonance imaging. Emergency surgery was planned because of pressure effect on the surrounding structures. The patient recovered smoothly from the surgery. To our knowledge, no reports of Listeria CA following OLT have been published in the English literature. This case shows that, although extremely rare, L. monocytogenes may cause CA in liver transplant recipients, and clinicians should be aware of this, so that prompt diagnosis and treatment can be instituted before serious brain damage can occur [9)].

2016

A 71-year-old man was diagnosed with hemorrhagic cerebellar abscess as a complication of groin abscess after cardiac catheterization. After surgical resection of the cerebellar abscess and culture-based antibiotic treatment, the patient suffered repeat hemorrhages into the abscess cavity, of which he died. We describe his clinical course with emphasis on radiology-based differential diagnosis. We also describe the possible pathogenesis of this rare case, based on review of the literature.

To our knowledge, this is the first report on recurrent hemorrhages in a cerebellar abscess. Hemorrhagic brain abscess has a complex radiologic appearance, which may delay diagnosis and treatment. A high degree of clinical suspicion is necessary to ensure timely treatment of this potentially lethal lesion [10)].

2009

This case report describes the gradual deterioration of a healthy, highly functioning man who initially presented with a draining right ear. The patient's indolent neurologic decline and referral to an otologist ultimately led to the diagnosis and treatment of an otogenic cerebellar abscess, an increasingly rare intracranial complication of otitis media. This case illustrate that severe complications of chronic otitis media still occur in the United States, to stress the importance of clinical suspicion in the postantibiotic era, and to review the literature regarding the most appropriate time to perform the otologic portion of the surgery [11)].

2003

A previously healthy adult who had a solitary cerebellar brain abscess diagnosed. This infection occurred 4 weeks after the patient underwent a tongue piercing procedure that was complicated by an apparent local infection. The clinical history, abscess culture results, and lack of an alternative explanation suggest that infection of the tongue piercing site was the source of the cerebellar abscess [12)].

García Galera et al. present a case of a dermoid cyst associated with an infected dermal sinus and posterior development of cerebellar abscesses and hydrocephalus [13].

2001

A case of cerebellar abscess secondary to chronic otitis and localized in the right cerebellar hemisphere, in a pediatric patient. The abscess was treated only by antibiotic therapy, evolving to complete clinical and radiological resolution, without neurosurgical intervention [14].

1995

A case of cerebellar abscess by Nocardia in a patient with the acquired immunodeficiency syndrome (AIDS) that was submitted to a posterior fossa craniectomy for diagnosis and treatment [15].

1984

A 15 year old boy was admitted to hospital with five days history of fever, headache, vomiting and otorrhea. Findings on physical examination included high fever, purulent drainage from right ear, nuchal rigidity, Brudzinski's and Kernig's signs. Laboratory finding was polymorphonuclear leukocytosis. Computerized tomography (CT) of his brain was normal. A lumbar puncture disclosed purulent CSF. Chloramphenicol and Penicillin G were given intravenously as treatment for the meningitis. After five days of this therapy he continued to be febrile and nuchal rigidity, Brudzinski's and Kerning's signs increased. The second CT demonstrated the presence of an abscess in the cerebellum. The abscess was aspirated during mastoidectomy. In the cultures of the aspiration material Bacteroides species and gram positive micrococci grew out. Metronidazole, 500 mg qid per oral, was added to the therapy. During treatment, his condition was evaluated with serial computerized tomography scans of his brain and these studies showed progressive decrease in the size of the lesion. Metronidazole and antibiotics therapies were continued 45 days. The patient made an uneventful recovery [16].

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