Late Onset Perinatal HIV infection presenting as HIV Encephalopathy

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Introduction

According to the World Health Organization, 37.9 million (32.7-44.0 million) people were living with HIV at the end of 2018. Of this 37.9 million, 1.7 million were children. In 2017, 73 children under the age of 13 received a diagnosis of perinatal acquired HIV in the United States and dependent areas. Though HIV can present with a multitude of signs and symptoms, it can have neurological manifestations in both children and adults. Early diagnosis of the central nervous system (CNS) by the virus, affecting the developing fetal and infant brain, is believed to result in the most common primary HIV-Encephalopathy (HIVE) refers to the disease, damage or malfunction of the brain caused by HIV. In non-treated children, prevalence has ranged from 20 to 60%.

Presentation

A previously healthy 13-year-old male was sent to the emergency department by his PCP for a 4-month history of progressive fatigue and academic decline with an acute onset of visual changes, and no abnormal enhancement. These findings were consistent with a multitude of signs and symptoms, it can have neurological manifestations in both children and adults. Early diagnosis of the central nervous system (CNS) by the virus, affecting the developing fetal and infant brain, is believed to result in the most common primary HIV-Encephalopathy (HIVE) refers to the disease, damage or malfunction of the brain caused by HIV. In non-treated children, prevalence has ranged from 20 to 60%.

Management

The patient was started on anti-retroviral therapy (ART) with Bictegravir/ Emtricitabine/ Tenofovir) alongside the antiretroviral regimens on HIV encephalopathy among perinatally infected children may continue to have motor and cognitive deficits. Despite good immune reconstitution due to ART, some children may continue to have motor and cognitive deficits. High dose dexamethasone (HAART) may halt the progression of HIV encephalopathy in affected infants. Though good immune reconstitution due to ART, some children may continue to have motor and cognitive deficits. High dose dexamethasone (HAART) may halt the progression of HIV encephalopathy in affected infants.

Discussion

HIV-Encephalopathy is an encephalopathy of recent HIV infection and is classified as stage IV according to the WHO clinical staging system. Differential diagnosis includes other forms of central nervous system (CNS) involvement in HIV infection such as CMV, toxoplasmosis, tuberculosis, and progressive multifocal leukoencephalopathy and CNS lymphoma. The HIV infection rate amongst children is closely linked to the rate of progression in the Western world. In non-treated children, prevalence has ranged from 20 to 60%.

Conclusion

After discarding the results of the patient to the caregiver, it was concluded that the patient might be perinatally infected with HIV. It is probable due to the mother failing to disclose her HIV status to all team members. Although this is a case report to highlight the development of clinical manifestations of perinatal HIV transmission before the age of 13, our patient developed early later stage meningitis prior to his diagnosis and treatment. Therefore, an early diagnosis is highlighted, as well as maintaining a broad, evolving differential diagnosis for encephalopathy in teenagers with neurological deficits and progressive cognitive decline. In addition, it remains increasingly important to monitor infectious workup and clinical findings during prenatal visits and then infants during newborn visits to avoid progression. Progressive immunodeficiency disease to the child from vertically transmitted diseases such as HIV in addition, despite the rarity of the diagnosis of HIV in children, amongst women, since the majority of pediatric infections are the result of vertical transmission from mother to child. In the absence of any intervention, transmission would benefit from inpatient rehabilitation. Thus, he was recommended inpatient admission for further evaluation.

Figure 1

Figure 2

References