

Case Report

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Hepatitis A with Bell's Palsy

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Introduction

Hepatitis A is a highly contagious infectious illness caused by the Hepatitis A virus. As the name suggests this disease targets the liver, with patients typically presenting with low grade fever, anorexia, nausea, upper abdominal pain, fatigue, yellowing of the whites of the eyes and the passage of high colored urine. These symptoms are relatively mild and recovery occurs within a few weeks.

Bell's palsy is an acute unilateral peripheral facial nerve palsy resulting primarily from a viral infection. Viruses linked to Bell's palsy include the Herpes simplex virus, Varicella zoster virus, Epstein-Barr virus, Cytomegalovirus, Mumps virus, Influenza B virus and the Coxsackievirus. The Hepatitis A virus is a rare causative agent, in our case it was however, found to associated, hence reported.

Case Report

Our case was a 16 yr girl who presented with a history of nausea, low grade fever, a vague upper abdominal pain and a total loss of appetite since the past 5 days. She also gave a history of consuming street food purchased from a local vendor almost daily. Her immunization record revealed that she had received all the primary vaccinations, but there was no documentation of her having received the Hepatitis A vaccination. On examination she had a mild fever, with a yellow sclera, a mild epigastric tenderness, and mild dehydration. The rest of the examination was normal. The clinical suspicion of Hepatitis was confirmed by the results of the investigations. Her total serum bilirubin level was 7.02mgm/dl (4.09mgm/dl being the direct fraction). The hepatic enzymes (AST 168U/L, ALT 564U/L, GGTP269U/L ALP247U/L) were significantly raised.

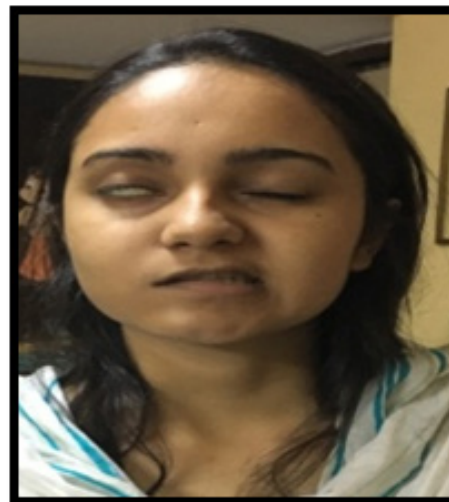
The anti HAV IgM was strongly reactive with an index of 7.36. Screening for HEV, HBV & HCV was negative.

She was advised symptomatic treatment.

She reported to the clinic a week later with the complaints of a sudden drooping of the Rt angle of her mouth and an incomplete closure of the Rt eye. Her previous complaints of nausea, abdominal pain, loss of appetite & fever were however better which cor-

roborated well with the significant decline noted in the bilirubin & enzyme levels in her repeat LFT report. A diagnosis of Rt. Bell's Palsy was made and she was advised regular physiotherapy. The patient reviewed 2 weeks later showed a marked improvement in the facial palsy with a complete clearing of the yellowness in her eyes.

A follow up 2 weeks later revealed a complete recovery of the facial palsy with no facial asymmetry



Discussion

Hepatitis A virus (HAV) is a nonenveloped positive-strand RNA virus member of the Picornavirus family, Hepatovirus genus. It was first described in 1973 by Steven M. Feinstone. HAV has an icosahedral shape and its size is 27–28 nm. The human is the only reservoir of HAV. It is transmitted by the fecal-oral route. The incubation period is 15–50 days (mean 28 days). The liver is the major site of this viral replication and extrahepatic manifestation of Hepatitis A are rare, less common than encountered in infections caused by the Hepatitis B virus.

Though uncommon, neurological complications during the acute

and convalescent phase of acute HAV infection have been reported in the form of meningoencephalitis, aseptic meningitis, Guillain-Barre syndrome, transverse myelitis, cranial neuropathies (trigeminal, facial, vestibulocochlear) and visual disturbances, Bell's palsy was named after Charles Bell who, in 1828 noted that the motor functions of the face were controlled by the 7th nerve. The 7th nerve courses through a portion of the temporal bone called the facial canal. Edema & ischemia may result in the compression of the nerve within this canal (as seen in the images obtained from MRI scans with facial nerve enhancement in patients of Bell's Palsy) leading to the development of facial palsy

Association of Bell's palsy with Hepatitis A has been reported in only a handful of cases where it has been mainly unilateral. As the dedicated work up for the etiology of the LMN type facial palsy in earlier reported cases as well as in our case was inconclusive,

Bell's palsy has been postulated to be probably an immune effect of the recent HAV infection from which our patient was recovering.

Thus the addition of Radioimmunoassay for the detection of anti HAV (immunoglobulin IgM) in the diagnostic investigations of Bell's palsy should be considered

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