Toxoplasmosis
A Case Report

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Though the availability of HAART has dramatically reduced the prevalence of opportunistic infection in the central nervous system, in developing countries where health care resources are poor, the disease pattern is still complex & infections of CNS remain a dominant cause of morbidity & mortality in AIDS patients.

Toxoplasmosis is the best-known frequent cause of intracranial mass lesions in patients with AIDS, accounting for 50-70% of all mass lesions in this population [1]. It is also the most common opportunistic infection involving the brain in patients with AIDS. The probability of ever developing toxoplasma encephalitis after the onset of AIDS has been estimated at 28%. It is said to be the most eminently treatable among all the CNS infections in this population [2] However, a high index of suspicion is necessary so as not to miss the diagnosis in a new patient.

CASE HISTORY:

M.E, 45 year old female, a known case of HIV was irregular on ARV treatment for about four years. She presented with sudden weakness in the left side of body. She was sent for CT scan. Normal slices were taken in standard position. Images showed a huge hypo dense lesion in the right fronto-parietal lobe, extending deep down to the right basal nuclei region, with mass effect and slight midline shift. A tiny calcification was seen in the region of the left basal nuclei.

In correlation with the clinical picture, an eye-catching diagnosis of acute Infarction was made. However, in view of depth of lesion with mild mass effect, in a case with a background of retroviral infection, the possibility of opportunistic infection could not be ruled out.

Due to non availability of contrast at that particular time, contrast study could not be performed. So the diagnosis was dependent on detailed laboratory tests. Finally Elisa test for specific anti-T. Gondii IgG and IgM Toxoplasmosis antigen came out to be positive.

Patient was started on Sulphadiazine and Pyrimethamine treatment (pyrimethamine - 25-50 mg / 8 hourly PO for 5 days; then pyrimethamine - 25-50mg / 24h PO fourly or 4 weeks, plus sulphadiazine - 4-6 g / 24h PO along with extensive physiotherapy. Patient started showing good sign of recovery in about 3-4 weeks time. Case was followed for few months only.

DISCUSSION:

Although infarction is not the common component of infection, it commonly to occurs along-side Tuberculosis or cryptococcal meningitis or neurosyphilis. Cerebral infarcts occur from arteritis, vasospasm and thrombosis of the small vessel as in TB meningitis or vaculitis of large vessels in neurosyphilis and cerebral vacuities with many opportunistic infections like CMV, Toxoplasmosis and Varicella Zooster Virus infection.[3]

Toxoplasmosis of CNS causes multifocal cerebritis, so initial symptoms and signs are often diffuse or focal. It may present as confusion, headache, focal fits, hemiparesis or focal neurological deficit. Lymphoma and toxoplasmosis are the two most common focally enhancing intracranial masses. Distinguishing between them is often a challenge to the radiologist. As the course of disease, prognosis and treatment of these two are similar, rapid and definite diagnosis is necessary.

At most centers, the current policy for AIDs patients with intracranial mass lesion is to rely on therapeutic trial for diagnosis, reserving brain biopsy for situations of treatment failure [3,4]

In an acute stroke like presentation in a HIV+ve patient (though occur in a minority of cases) [4] starting therapeutic trial of anti-toxoplasmosis therapy may be significant.

We feel our study points to certain facts:

1. An acute stroke-like presentation is also possible with toxoplasmosis though this occurs only in a minority of patients.
2. Though definitive diagnosis requires the demonstration of the parasite in the brain tissue, many clinicians feel that brain biopsy is contraindicated because of increased morbidity and mortality. The option then is a therapeutic trial [4]

References:

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