**Original article :**

**3 tesla MRI evaluation of febrile and unconscious patients with CSF analysis correlation in an endemic zone for herpes and Japanese encephalitis**

**1Dr. Neeraj Prajapati , 2Dr. Rajneesh Madhok , 3Dr. Swinky Rastogi , 4Dr. Divyant Rawal , 5Dr. Chaitanya Tapasvi , 6Dr Vinod Kumar**

1Asst. Prof (Radiodiagnosis) , SRMS, IMS Barielly UP

2Prof and Head (Radiodiagnosis) , SRMS, IMS Barielly UP

3Junior resident IInd year (Radiodiagnosis) , SRMS, IMS Barielly UP

4Consultant Neurologist , SRMS, IMS Barielly UP

5Asst. Prof (Radiodiagnosis) , SRMS, IMS Barielly UP

6Senior resident (Radiodiagnosis) , ESI Hospital,Basaidarapur, New Delhi

Corresponding Author: Dr. Neeraj Prajapati ; Email: drneerajprajapati@rediffmail.com

Date of submission: 12 May 2014 ; Date of Publication : 15 September 2014

**Abstract:**

**Introduction:** Encephalitis is a medical emergency and is defined as the presence of an inflammatory process in the brain parenchyma associated with clinical evidence of brain dysfunction. MRI plays an important role in patient evaluation and to know the exact etiology in febrile and unconscious patients.

**Methods:** A prospective study of 50 patients (adults & children) presented in the casualty with fever, altered sensorium or unconsciousness were evaluated on 3 Tesla Siemens MRI . The CSF findings were also correlated along with the MRI findings. Observations were collected in a prescribed Performa for analysis.

**Results:** Out of 50 patients evaluated, 44 (88%) patients reveal MRI findings s/o viral encephalitis and in remaining six patients, three cases were of SSPE (6%), 1 (2%) each of ADEM, drug induced, electrolyte imbalance and Tubercular meningitis. Out of 44 patients of suspected encephalitis, in 23 (52%) patients findings were of herpes encephalitis and in 15 (34%) patients were of Japanese encephalitis, 3 (7%) cases were diagnosed as HIV encephalitis. 3 (7%) were doubtful for both herpes / Japanese encephalitis.

**Conclusions:** Viral encephalitis is a neurological emergency with fatal course if remain undiagnosed. 3 Tesla MRI along with characteristic clinical manifestation & routine CSF correlation proved to be useful in detecting the etiology of unconscious and febrile patients especially for the causative agent for encephalitis and helpful in treating the patients successfully.

**Key words:** Herpes encephalitis, Japanese encephalitis, MRI, CSF, HIV encephaltis.