

AEFI Surveillance – The Learning Curve Continues

A 3-month-old girl was brought to pediatric emergency services of our hospital two days after second dose of pentavalent vaccine. She had fever and three episodes of generalized tonic clonic seizures, which were interspersed over 24 hours and each lasted for approximately 1 minute. There was no family history of epilepsy. The child was reported to the authorities as Adverse event following immunization (AEFI). She was hemodynamically stable, lethargic with no focal neurological deficit. Her systemic examination and optic fundus was normal. Her blood investigations (blood sugar, electrolytes and ionized calcium) as well as CSF examination were normal. Ultrasound head showed prominent lateral and third ventricles. Child was treated with phenobarbitone and during her hospital stay of 4 days, she remained seizure-free, and received breast feeds exclusively. She was discharged on antiepileptics in a stable condition with MRI and EEG being planned on follow-up. Four days later, the baby was brought in a state of cardiac arrest. History revealed that she had turned lethargic and then apneic. Resuscitation was performed as per protocol but she could not be revived. Parents refused autopsy. MRI brain done post-discharge and collected posthumously showed prominent extra-axial CSF spaces in frontotemporal region, cerebral convexities with widened sylvian fissures bilaterally and uniform thinning of corpus callosum (**Fig. 1**). These findings were highly suggestive of Glutaric Aciduria type 1 [1].

As per AEFI surveillance, any death following AEFI is reported to District Immunization Officer. Recently, increasing number of deaths after Pentavalent immunization have been reported from different parts of country, which is likely due to an improving surveillance program [2]. However, even a single case of serious AEFI evokes lot of media attention and scare among the general public. Hence, it is highly imperative that all efforts

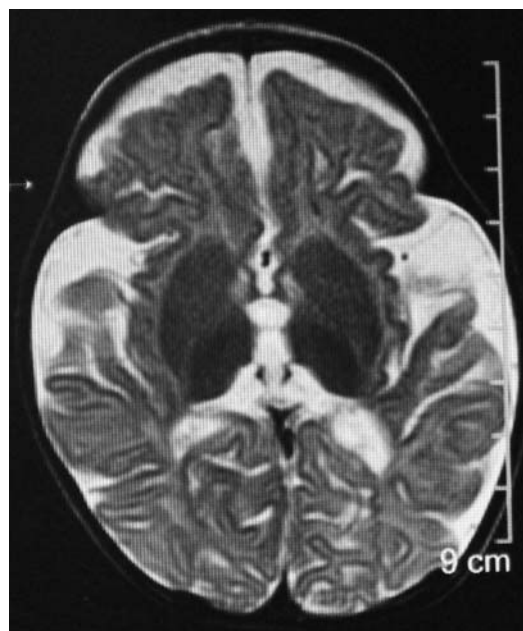


FIG.1 T2W images of MRI brain showing bilateral frontotemporal atrophy with widened sylvian fissures (the bat wings sign) seen in Glutaric Aciduria Type 1.

should be made to establish causality right at the hospital level immediately after the event [3].

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