

Immunizations must become a *routine* application and an integral component of basic health care of the growing child (which indeed is a crucial child right).

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Recurring Epidemics of Acute Encephalopathy in Children in Muzaffarpur, Bihar

Muzaffarpur district, suffers repeated epidemics of acute encephalopathy in children for the past 16-17 years. An outbreak of this mystery disease, with high case fatality (63.3%) was reported in children from Muzaffarpur district, Bihar, in June 2011. We report here our findings of the investigations carried out to confirm the etiology and to describe the clinico-epidemiological features.

Clinically, the presentation indicated Acute encephalitis syndrome (AES). We studied 80 children from age group of 2-10 (median, 3.5) years belonging to low socioeconomic background. Almost all cases were from rural area. Following clinical criteria were used to select a case of AES: Rapid onset of unconsciousness in a previously healthy child after attack of convulsion, and presence of fever $>40^{\circ}\text{C}$.

The main presenting features were fever and convulsions (100%), unconsciousness (100%), decerebrate rigidity (50%), tachycardia (80%), tachypnea (80%), and absent splenomegaly. The CSF was normal but under raised pressure (100%). Hematological investigations revealed leucocytosis with neutrophil predominance (80%). Biochemical investigation revealed hyponatremia (90%), hypokalemia (5%), mild raised SGPT (50-100IU/L) (30%), mild raised blood urea (40-50mg/dL) (40%), and normal creatinine. Smears for malarial parasites were negative. CT scan was done in 8 cases; two showed feature of cerebral edema, rest was normal. ECG showed non-specific ST changes and tachyarrhythmia

The requisite clinical samples were collected from 55 patients and sent to National Institute of Virology, Pune and National Communicable Disease Center, New Delhi for virological testing. These included 31 CSF samples,

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59 serum samples, 19 nasal swabs, 48 throat swabs, 44 rectal swabs, 2 urine samples, 2 postmortem brain needle biopsy material by nasal route, and 1 postmortem liver biopsy specimen. All clinical samples were negative for known virus causing acute encephalitis like JE, Nipah, West Nile and chandipura virus. Some specimens were processed for the discovery of novel agents. However, no agent has been found which can be attributed to the cause of the mystery disease in Muzaffarpur [1].

The presentation, seasonal distribution, climatic condition and investigations of the cases did suggest a diagnosis of encephalopathy of heat stroke (HS), as similar picture has been described in few other studies also [2,3]. Between April and June, the climate of Muzaffarpur is extremely hot and humid ($28/40^{\circ}\text{C}$, 90% humidity) and most epidemics occurred at the height of temperature ($38-40^{\circ}\text{C}$) and humidity (70%-80%) suggesting the possibility of HS. The number of cases suddenly decreases with the onset of rain and resultant sudden drop in temperature.

Heat stroke is a life threatening medical emergency – defined clinically as core temperature $>40.6^{\circ}\text{C}$ accompanied by central nervous system dysfunction. It is a diagnosis of exclusion. After other similar entities such as drug withdrawal syndrome, neuroleptic malignant syndrome, septicemia, cerebral malaria, CNS infection, thyroid storm, drug toxicity (anticholinergic) have been excluded [2]. Despite the advances in last 50 years, mortality due to heat stroke continues to be as high as 10-50% [3]. Since Japanese encephalitis (JE) occurs in many parts of India, especially in outbreaks, physician and investigators have a focus on JE virus. This has not been wasteful but distracts investigators from other possible explanations and etiologies. Thus, the mystery of undiagnosed outbreaks persists [4,5]. Neuropathological study of 15 cases of autopsy of brain, conducted by ICMR during 1967 and 1968, failed to provide any stigmata of encephalitis, but confirms the presence of “encephalopathy”, caused by high environmental temperature *per se* or secondarily in association with other endogenous cause [6].

The disease entity has been occurring in months of May-June every year in this district of since 1995. The causative factors and mechanism, which is triggering the disease every year in this region, needs a systemic epidemiological study. For the interim, awareness on prevention of heat stroke may possibly contribute to a reduction in the number of affected children.

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Ban on Advertisement of Food Product

I read with interest the recent articles by Jaykaran and JP Dadich [1, 2]. They have rightly pointed out the misleading health claims by food manufacturer. Most of practicing pediatricians are busy in their office practice and they usually transfer the information to the patients which are provided by my medical representative of pharmaceutical companies. Sometimes parents also demand some health drink for their child to grow fast. We should be very judicious to prescribe health drink to patients as sometime it may lead to problem of overweight and obesity in children. *Indian Pediatrics* should publish such types of articles to aware its readers. Journal must not publish advertisement of health drinks without critically analyzing studies related to this product. The journal may adopt some policy like the *Journal of Emergency Medicine Australasia* which has stopped all drugs advertising forthwith. The authors said “drug ads were counter to a medical journal’s mission to provide objective data that enabled doctors to make judgments based on the best available evidence and such advertising could change the prescribing practices of doctors” [3]. It is a high time for *Indian Pediatrics* to show leadership and make a stand for at least not advertising health drink/ food products.

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Reply

We thank Dr Goyal for his encouraging comments on the recently published articles related to misleading health claims by nutritional supplement manufacturers [1]. Regarding advertisements of food products, *Indian Pediatrics* endorses IAP Policy of not accepting advertisements from companies covered under IMS Act. As *Indian Pediatrics* is distributed free to its approximately 20,000 readers, the financial demands of the journal does not allow us to put a blanket ban on any food product/health drink. Further, the journal explicitly states on the contents page, and again reiterates that it does not guarantee the claims made by any of the advertisers [ibis].

The journal readership consists of medical professionals who are expected to keep themselves updated with the latest information in the field. Being busy in practice and passing on information received from sales executives to the parents does not measure up to the high professional standards expected from all of us.

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