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Acute Encephalitis Syndrome (AES): The Case Study of Muzaffarpur District of Bihar

Mohammad Maaz Ahmad¹

¹ Asfendiyarov Kazakh National Medical University

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Abstract

Acute encephalitis syndrome (AES) is a serious public health problem in India specially Muzaffarpur district in Bihar. Bihar has recorded 188 cases of acute encephalitis syndrome, with 45 deaths since January. All casualties are children, the maximum in Muzaffarpur. Every year there is a repeat of the same, still no specific measures have been taken. The death of over 125 children in Muzaffarpur due to Acute Encephalitis Syndrome is very shocking. These children come from low-income group families and are poorly nourished. It is time to remember Elizabeth Barrett Browning for her poem 'The Cry of the Children' dedicated to the condition of children in England who were made to clean chimneys and work in hazardous industries. As a result, many would catch serious diseases and eventually die an early death. The poem examines children's manual labor forced upon them by their exploiters. It was published in August 1843 in Blackwood's Magazine. However, since then England has moved far ahead. All the children go to school, get proper nutrition and health care required of them.

Index terms— Acute encephalitis syndrome (AES), chamki fever, Muzaffarpur district, child malnutrition, hypoglycaemic encephalopathy.

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4 CONCLUSION

45 As a result of the outbreak, total 154 children died in the first three weeks of June 2019. A total of 440 cases of
46 AES were admitted to hospital in these three weeks. At least 85 children of them died at the Sri Krishna Medical
47 College and Hospital (SKMCH), the largest state-operated hospital in Bihar, while at least 18 children died at
48 the Kejriwal Matrisadan, a trust-run hospital, in these weeks. Most of them were aged between 1 and 10 years.

49 In the subsequent months of July, August, and September; at SKMCH; 30, 18, and at least 12 cases were
50 reported. Total 647 cases of AES including 161 deaths were reported between 1 June and 20 September 2019.
51 The cause and manner of the disorder in a large number of AES cases still remain unidentified.

52 II.

53 1 Sign and Symtoms

54 The signs and symptoms of AES include:

55 1. Clinical neurological manifestation that includes mental confusion, disorientation, delirium, or coma. 2. An
56 acute onset of fever.

57 2 Treatment

58 The first treatment plan for this viral infection is hydration and increasing the glucose levels in the body.
59 We can treat Acute Encephalitis Syndrome (AES) using antibiotics, antiviral medication, and supportive care.
60 The treatment for hypoglycaemia includes supplying dextrose, a simple sugar similar to glucose, intravenously.
61 "Nutrition and control of fever and seizures form the backbone of treating this disease. Some patients may also
62 require breathing support and ICU care. In viral encephalitis, the antibiotics do not work and antivirals may be
63 used."

64 ? The other treatment options are -bed rest, plenty of fluids, anti-inflammatory drugs to relieve the symptoms
65 such as fever and headache. There is no cure for the disease. However, safe and effective vaccines are available
66 to prevent encephalitis.

67 Vaccination: As per Govt. of India guidelines, 2 doses of JE vaccine have been approved to be included in
68 UIP to be given one along with measles at the age of 9 months and the second with DPT booster at the age of
69 16-24 months w.e.f. April, 2013.

70 IV.

71 3 Diagnosis

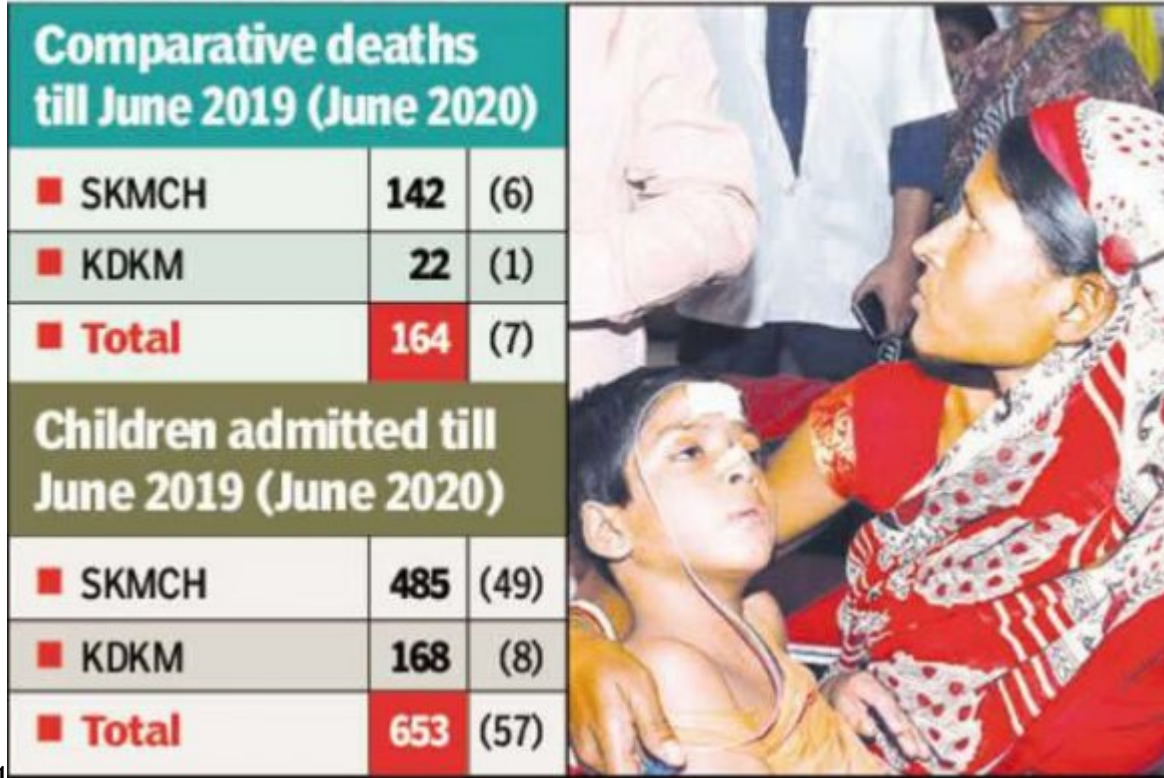
72 Laboratory-Confirmed case: A suspected case with any one of the following markers: ? Presence of

73 4 Conclusion

74 Today one of the big problem face by Bihar is acute encephalitis syndrome (AES). The main problem of this
75 disease is Poverty, malnutrition and lack of awareness. The logic behind the link between litchi fruit consumption
76 and AES is that when children eat large amounts of unripe litchi fruits (on an empty stomach), it may lead to
77 hypoglycemic encephalopathy. It is a that causes prolonged or severe hypoglycemia or low blood sugar. Unripe
78 litchi has the toxins hypoglycin and methylene cyclopropyl glycine (MCPG) that cause vomiting if ingested in
79 large quantities so, please do not eat litchi in an empty stomach. Well-nourished children are not affected by the
80 consumption of Litchi fruit. AES affects only undernourished children who consumed litchi fruit the previous
81 day and went to bed on an empty stomach. ¹

¹Acute Encephalitis Syndrome (AES): The Case Study of Muzaffarpur District of Bihar

STATE BREATHES EASY



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Figure 1: 3 . Headache. 4 .

V. ? Personal preventive health measures such as the Prevention use of repellents, wearing long-sleeved clothes, practicing good hygiene -washing hands frequently and thoroughly with soap and water, especially after using the toilet, before and after meals -can help prevent viral encephalitis. Improve nutritional status of children at risk of JE/AES. Clothing reduces the risk of mosquito biting if the cloth is sufficiently thick or loosely fitting. Long sleeves and trousers with stockings may protect the arms and legs, the preferred sites for mosquito bites. School children should adhere to these practices whenever possible. Repellents are a common means of personal protection against mosquitoes and other biting insects. These are broadly classified into two categories, natural repellents and chemical repellents. Essential oils from plant extracts are the main natural repellent ingredients, i.e. citronella oil, lemongrass oil and neem oil. ? Govt. of India, as part of the National Programme for Prevention & Control of JE/AES, follows a multi-pronged strategy encompassing preventive (sanitation, safe drinking water, improvement in nutrition etc.), case management (capacity building of medical and para-medical staff, referral etc.) and rehabilitation (physical and social rehabilitation of disabled children), measures to address the problems relating to JE/VI.

Figure 2:

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