ACUTE HEMORRHAGIC LEUKOENCEPHALITIS SECONDARY TO SEVERE DIABETIC KETOACIDOSIS

D. Bhat¹, G. Dhooria¹, S. Kakkar¹

¹Department of Pediatrics, Dayanand Medical College, Ludhiana, India

BACKGROUND AND AIMS

Acute hemorrhagic leukoencephalitis is a fulminant demyelinating disease and commonly considered as a rare and severe variant of acute disseminated encephalomyelitis. It is also known as **Weston-Hurst syndrome** and is an excessive immunological response of unknown etiology. So far, an association with diabetic ketoacidosis has not been reported.

CASE REPORT

An 8 year old female child presented to our emergency department with complaints of cough for 4 days, difficulty in breathing and altered sensorium for 2 days. Child was earlier admitted in our hospital and **diagnosed** as a case of **IDDM** and discharged on subcutaneous insulin. On examination child was in altered sensorium. Vitals included a Heart rate of 180/mt with sinus rhythm, weak peripheral pulses, Blood Pressure of 88/50 mmHg, capillary refill time of 3 seconds, respiratory rate of 50/mt with subcostal retractions. Glasgow coma scale was E3M5V3. Blood sugar of 300mg/dl and blood ketone level of 6.9. Renal functions showed an initial creatinine of 1.38, BUN of 144. Child was managed as a case of severe DKA with pulmonary infection. Child got intubated on Day 2 and started on ventilation. Patient was started on **peritoneal dialysis** on day 3. Patient was extubated on day 8. On day 12 child had seizures and had to be reintubated and again put on ventilator support. **MRI brain** done **showed hemorrhagic leukoencephalitis (Image 1)**. Child was started on pulse dexamethasone for 3 days, got extubated on day 14.

WBC (per dl)	Hb (gm/dl)	Plt (per dl)	Urea (mg/dl)	Creatinine (mg/dl)	AST (IU/L)	ALT (IU/L)	RBS (mg/dl)	Glcosylated Hb (gm%)	Day
6,000	12.7	150000	119	1.23	38	24	300	13.6	1
8300	10.8	107000	179	4.1	45	40	180		3
12000	12	321000	12	0.2	38	36	30		8
7000	12.5	310000	16	0.8	-	-	102		20

CONCLUSION

The present case raises the question, whether acute hemorrhagic leukoencephalitis is a specific hyperacute form of acute disseminated encephalomyelitis or a severe and unspecific form of an immune response in the central nervous system.