

Recovery of acetaminophen-induced fulminant hepatic failure and encephalopathy after ten days of intravenous N-acetylcysteine administration in twin boys

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Acetaminophen is considered a safe medication and is a favored analgesic and antipyretic [1-7]. Despite this, frequent use of unintended inappropriate dosing or failure to recognize the risks associated with standard dosing can contribute to acetaminophen toxicity. Twins aged 10 months were admitted to a primary hospital due to a viral infection lasting for five days and were treated with acetaminophen and antibiotics. Their condition worsened and they were transferred to tertiary hospitals. Twin 2 was brought to KFMC, and twin 1 was admitted to another hospital. As per medical report, twin 1 received 160 mg acetaminophen orally (120 mg/kg/day) and twin 2 was (96 mg/kg/day) for five days, after which the patients' conditions did not improve. Despite acetaminophen therapy, the fevers continued, and they developed diarrhoea and vomiting. Treatment twin 1 acetaminophen levels of 80 $\mu\text{mol/L}$, an intravenous loading dose of N-acetylcysteine was initiated at 150 mg/kg over 1 h, followed by a second dose of N-acetylcysteine of 50 mg/kg over 4 h, and finally 100 mg/kg N-acetylcysteine over 16 h per day for three days. Treatment twin 2 a loading dose of NAC was initiated at 150 mg/kg over 1 h, followed by a second iv dose of 50 mg/kg NAC over 4 h. Then, 300 ml


of fresh frozen plasma and 5 mg of vitamin K was given by the i.v, followed immediately by 100 mg/kg NAC over 16 h and continued at 10 mg/kg/hour thereafter. The rate was reduced to 6.25 mg/kg/hour after three consecutive ALT level results of <1000 IU/L and normalization of INR. There was no further bleeding after 48 h of NAC administration. Both patients were discharged, after one-month check –up both infants were fine.

Conclusions: Although paracetamol toxicity is uncommon, it is important that physicians need to provide adequate counseling to parents regarding its use in the management of fever during viral illnesses.

Speaker Biography

Abdullah Altamimi is a medical consultant with an expertise in Paediatric emergency and medical toxicology. He earned his medical degree at King Saud University Medical College. He completed his paediatric residency program at King Saud Medical City and completed his fellowship in paediatric emergency program at King Abdulaziz Medical City. He attended and joined several fellowship trainings in Paediatric emergency at University of Toronto and in medical toxicology at Emory University Georgia USA. He was a member of Arab Board general paediatric at Damascus Syria and Saudi Board Paediatric Emergency. He has authored numerous journals related to toxicology and acetaminophen.

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