Paracetamol – High Strength Formulations and Toxicity

In India, paracetamol is available in many formulations such as liquid suspension, drops, tablets, injection, rectal suppositories with varying concentrations (120/125/150/250/500 mg/5 mL). The usual cause of paracetamol overdose is frequent administration of the drug round the clock by an anxious parent who regards fever as a potential dangerous event and as a trigger for febrile seizures. Unfortunately, therapeutic misadventure (wrong prescription by a doctor) is also an important cause of paracetamol toxicity in our set-up. In an earlier study, paracetamol syrup (250mg/5 mL) was common reason of accidental single over dose (46%) and ‘drops’ was the common formulation causing toxicity due to multiple dose ingestion (63%) [1]. Even if the medical practitioner prescribes paracetamol in the right dosage, caregivers inadvertently administer a high strength formulation, resulting in over-dosage. The American Academy of Paediatrics has recently recommended the use of a single strength liquid preparation and the pharma industry in USA has been adhering to this recommendation. As an initiative, our hospital, administration has implemented a policy of use of only a single strength preparation of 125mg/5 mL to prevent over-dosage. This initiative needs to be propagated all over India through the Indian Academy of Paediatrics. There is a need to counsel parents that antipyretic agents do not prevent febrile convulsions and should not be used specifically for this purpose [2]. Antipyretic agents with the sole aim of reducing body temperature in children with fever is not recommended and should only be considered for children with fever-related discomfort [3]. Pediatricians should also promote patient safety by advocating for simplified formulations, dosing instructions, and dosing devices [4].

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REFERENCES