

Potential Carcinogenicity of Chloral Hydrate-A Review.

Salmon, A, et al. Clinical Toxicology, 33(20, 115-121 1995)

ABSTRACT

Chloral hydrate is commonly used to sedate children for diagnostic or therapeutic procedures. The drug has been extensively used for many years, but there are remarkably few data on its long-term health effects. Concern in this regard is raised by recent studies showing chloral hydrate to be genotoxic, causing chromosome changes and other effects in vivo and in vitro. In addition, chloral hydrate is a reactive metabolite of trichloroethylene, a known carcinogen, and is structurally similar to other carcinogenic intermediates. Two carcinogenicity studies performed using the oral route of administration in mice indicate that the drug is potentially carcinogenic – in one case after a single dose lower than the typical dose used for sedation. Practitioners should be aware of chloral hydrate's genotoxicity and potential carcinogenicity. Discretion in its use seems appropriate until further studies clarify its long term health consequences. (Key Words: chloral hydrate, toxicity, adverse effects; child; sedatives.)