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Effect of carbendazim on the liver of male Swiss albino mice

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Abstract : *The effect of a fungicide,carbendazim was examined on the liver of Swiss albino mice by using histological technique and by measuring serum glutamic pyruvic transminase (SGPT) level in the blood. A sublethal dose of carbendazim caused pathological changes in the liver. Simultaneous administration of ascorbic acid with carbendazim showed positive changes in the liver histology.*

Keywords : *Carbendazim , Olive oil, Ascorbic acid , Liver, SGPT.*

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Introduction :

Carbendazim is a widely used broad spectrum fungicide. It is widely used in China and India to control fungal pathogen on cereals, fruits, cotton, tobacco, turf, ornamentals, vegetables etc. In India, its trade name is Ruston-50, Benfil and Bavistin. Its molecular formula is $C_9H_9N_3O_3$.

Carbendazim has been reported to cause endocrine and developmental toxicity in rats and mice (Lu et al 2004; Farag et al 2011). Its repeated exposure leads to adverse effects on the testes in rats (Nakai et al 1992; Lim and Miller 1997; Moffit et al 2007) and causes hepatic tumor in mice (Beems et al 1976; Carter et al 1987). Surprisingly, carbendazim was classified by the World Health Organisation (WHO) as 'unlikely to present hazard in normal use' in 1993. But, now, it is considered one of the twelve most commonly detected pesticides in EU monitoring programmes, most often in apple samples, followed by grapes and strawberries (EC 2001). Carbendazim is one of the