Chronic rat and dog toxicity studies on tartrazine

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Abstract

Rats. Five groups of 24 Osborne-Mendel weanling rats, evenly divided by sex, were fed 5.0, 2.0, 1.0, 0.5, and 0.0% tartrazine mixed in their Purina laboratory chow diet for 2 years. Growth effect was negligible, and there was no effect on survival, hematology, or organ weights. The rats evidenced diarrhea at the 5% dosage level, slight diarrhea at the 2% level, and no diarrhea at the 1% level. The incidence of tumors and of the common incidental diseases was unaffected. No organ pathology attributable to treatment was noted except at the highest dosage level, where the feeding of tartrazine may have influenced the deposition of small amounts of gritty material in the renal pelvis of some of the surviving male rats.

Dogs. Three groups of two male and two female beagles each were fed diets containing 2, 1, and 0% tartrazine for 2 years. No clinical symptoms of toxicity or hematologic abnormalities were noted during the study. No gross lesions were noted at autopsy. Histopathology was limited to the usual incidental lesions which, with the possible exception of pyloric gastritis in one high dose level dog, were not attributable to tartrazine toxicity.