Abstract


Teratogenic potential of FD & C red no. 3 when given in drinking water.

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FD & C Red No. 3 (erythrosine), a commonly used food additive, was administered to pregnant Osborne-Mendel rats to study its teratogenic potential. Dosing solutions of 0.05, 0.1, 0.2 or 0.4% in distilled water were available at all times and corresponded to daily doses of 64, 121, 248 and 472 mg FD & C Red No. 3/kg body weight. Distilled water served as the control. On gestation day 20, the animals were killed and caesarean sections were performed. The treated animals consumed less fluid than did the control animals, but only random decreases were statistically significant and no dose relationship was seen. Only the 0.2% group consumed significantly more feed than the controls during gestation. Maternal weight gain during days 0-20 was not significantly affected in any group. No dose-related changes were seen in maternal clinical findings, implantations, foetal viability, foetal size (weight and length) or visceral development. No dose-related teratogenesis was seen. Skeletal development was not affected; the few statistically significant increases in skeletal variations were not dose related and were considered to be random. FD & C Red No. 3 was neither foetotoxic nor teratogenic at the dose levels tested in drinking water.

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