

GENERAL REMARKS

This ninety-ninth volume of the *IARC Monographs* contains evaluations of the carcinogenic hazard to humans of some aromatic amines, organic dyes, and related occupational or consumer exposures. Each had been evaluated previously in Volumes 1, 4, 29, 57, or 77, or in Supplement 7. Newer epidemiological and experimental studies have been published and are reviewed in this volume. As most of these compounds have been associated with bladder tumours in humans or experimental animals, they are being considered at one time with a view towards determining whether the overall evaluations can be improved through consideration of common mechanisms of carcinogenesis.

Several studies where hair dyes were applied to the skin of experimental animals would not be considered adequate tests of carcinogenicity by current standards. These studies did not involve administration at a maximum tolerated concentration, and signs of toxicity, reduced body-weight gain, or reduced survival were not often reported. Rather, the hair dyes were generally applied at concentrations representative of consumer use. In one set of experiments, the concentration applied to the animals was diluted to one-tenth of the strength of the commercial product as intended for use by people. These low concentrations, coupled with the small numbers of animals tested in some studies, reduce the informative value of these experiments and suggest a pressing need for publication of proper carcinogenicity studies that meet current standards.

A summary of the findings of this volume appears in *The Lancet Oncology* (Baan *et al.*, 2008).

Reference

- Baan R, Straif K, Grosse Y *et al.* (2008). Carcinogenicity of some aromatic amines, organic dyes, and related exposures. *Lancet Oncol*, 9:322–323. doi:10.1016/S1470-2045(08)70089-5 PMID:18405853
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