THE TOXICOLOGY OF PALMYRAH (*BORASSUS FLABELLIFER*) FLOUR
I. CYTOGENETIC EFFECTS

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Palmyrah flour which is consumed by some Asian and African people, has previously been reported to produce acute and chronic toxic effects and to induce malignant lymphomas in rats. To investigate a possible pathogenetic mechanism for these tumours and the toxicity, the effects of aqueous extracts of palmyrah flour on human peripheral blood lymphocytes *in vitro* have been examined with Mitomycin C as a positive clastogenic control.

The flour extracts were clastogenic mainly to Group A chromosomes, producing chromatid and chromosome gaps, chromatid and chromosome breaks with occasional formation of large and small acentric fragments. Dicentric chromosomes, chromatid interchange and ring formation were rare.

Under the conditions employed, these effects were dose dependent and were consistently produced by extracts from different batches of flour but were less frequent than the aberrations produced by Mitomycin C.

No mitogenic effect of the extracts alone were noted. The relation of these clastogenic effects to the induction of malignant lymphomas in rats and the occurrence of such tumours in humans is discussed.

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