Assessment of the potential genotoxic risk of medicinal *Tamarindus indica* fruit pulp extract using *in vivo* assays

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Received April 28, 2009
Accepted June 24, 2009
Published September 8, 2009

**ABSTRACT.** *Tamarindus indica* has been used in folk medicine as an antidiabetic, a digestive aid, and a carminative, among other uses. Currently, there is no information in the toxicology literature concerning the safety of *T. indica* extract. We evaluated the clastogenic and/or genotoxic potential of fruit pulp extract of this plant *in vivo* in peripheral blood and liver cells of Wistar rats, using the comet assay, and in bone marrow cells of Swiss mice, using
the micronucleus test. The extract was administered by gavage at doses of 1000, 1500 and 2000 mg/kg body weight. Peripheral blood and liver cells from Wistar rats were collected 24 h after treatment, for the comet assay. The micronucleus test was carried out in bone marrow cells from Swiss mice collected 24 h after treatment. The extract made with *T. indica* was devoid of clastogenic and genotoxic activities in the cells of the rodents, when administered orally at these three acute doses.

**Key words:** *Tamarindus indica*; Micronucleus test; Comet assay; Medicinal plant; Single-cell gel electrophoresis