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Title of Thesis

Teratogenic Effects of Diniconazole (Fungicide)

During Prenatal Development of Albino Mice.

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ABSTRACT

The purpose of this study was to assess the fetotoxic and teratogenic potentiality of diniconazole in mice. Pregnant female mice received daily oral doses of 15.63, 31.25 or 62.5 mg/kg of diniconazole during the period of organogenesis. Diniconazole treatment during late pregnancy induced maternal toxicity as indicated by a significant reduction in the maternal body weight, increased maternal organs weight and damage in liver tissue. Developmental toxicity recorded during these treatments were manifested by increased incidences of both partial and complete resorption of implants and miscarriage of fetuses as well as increased percent of females showing such effects. These effects lead to a marked reduction in percent of life fetuses per dam. Examination of life fetuses from diniconazole treated dams on 18th day of gestation showed marked fetal growth retardation and a significant increase in the percent of the malformed fetuses per dam and percentage of dams with malformed fetuses. These malformations were clearly recorded in gross morphology and skeleton of the fetuses. Skeletal malformations were observed in sternebae, ribs and vertebral centra. Also, assessment of skeletal ossification of life fetuses revealed marked retardation in the major parts of the skeleton. The previously mentioned effects of diniconazole may be attributed to hormonal imbalance and genotoxic effects exerted by the used fungicide