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# COMPARISON OF MEBENDAZOLE ANTICANCER EFFICACY WITH PACLITAXEL AND VINCRISTINE

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## ABSTRACT

Mebendazole is a commonly used antiparasitic drug. In addition, it is mentioned in the literature that mebendazole may have anti-cancer effects. The present study was conducted to compare the anti-cancer effects of mebendazole when combined with vincristine and paclitaxel used in cancer treatment. In the study, following the induction of Solid Ehrlich Carcinoma (SEC) in Balb-C mice, vincristine (0.5 mg/kg, i.p.), paclitaxel (20 mg/kg i.p.), mebendazole (50 mg/kg p.o), vincristine+mebendazole and paclitaxel+Mebendazole application was made for 21 days. During the application process and at the end of the experiment, SEC mass volumes, tissue hemoglobin levels and apoptotic DNA-levels were examined. At the end of the study, while the SEC mass volume decreased in all treated groups, the most significant decrease was observed in the group in which mebendazole was administered alone ($P<0.05$). While SEC tissue hemoglobin level decreased in all treatment groups, an increase was observed in apoptotic DNA levels ($P<0.05$). We suggest that mebendazole may have apoptosis-inducing effects and anti-cancer effects on SEC tissues in single and combined applications.

**Keywords:** Apoptosis, Anti-cancer**,** Mebendazole, Paclitaxel, Vincristine.