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ABSTRACT BOOK

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INCREASED IL-6 LEVELS INHİBİTES BY ZİNC AND MELATONİN SUPPORT İN RATS WİTH BREAST CANCER İNDUCED BY DMBA

[1] Research Assist SALTUK BUĞRA BALTACI - Selçuk Üniversitesi
[2] Assist. Prof. Dr. ELİF GÜLBAHÇE MUTLU - Karatay Üniversitesi
[3] Prof. Dr. RASİM MOĞULKOÇ - Selçuk Üniversitesi
[4] Prof. Dr. ABDULKERİM KASIM BALTACI - Selçuk Üniversitesi

The aim of the present study determines the effect of zinc and melatonin supplementation on IL-6 levels in female rats with breast cancer induced by DMBA. The aim of the present was study determine the effects of zinc and melatonin on brain tissue (cortex) lipid peroxidation in rats with breast cancer induced by DMBA. Wistar species, total 42 female rats which was just weaned from milk equally separated 5 groups. Group 1 control, Group 2 DMBA control, Group 3 DMBA+ Zinc, Group 4 DMBA + Melatonin, Group 5 DMBA + Zinc + Melatonin. To induce breasr cancer 80 mg/ kg DMBA was given by gavage in rapeseed oil (canola) except group 1. Zinc and melatonin were supplemented as 5 mg/kg/day for 4 weeks. Brain tissue samples (cortex) were examined for MDA and GSH be spectrofotometrics. Blood samples were taken under general anesthesia to tubea with EDTA, and IL-6 levels were determined by ELISA. The highest IL-6 levels were determined in the DMDA control group ($p<0.05$). DMBA + zinc and DMBA+ melatonin groups were have lower IL-6 levels compared to group 2 ($p<0.05$). Group 5 has the lowest IL-6 levels compared to all breast cancer induced groups (G 2,3,4) ($p<0.05$). The findings of the present study indicates that increased IL-6 levels in breast cancer inhibites by zinc and melatonin. However, the most significant inhibiton was seen in combine of zinc and melatonin (group 5). The combined administration of zinc + melatonin may contribute to the prevention of tumoral growth by suppressing IL-6 levels, which can accelerate cancer development.

Keywords: DMBA, Breast cancer, IL-6, Zinc, Melatonin
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Corresponding Author: Assist. Prof. Dr. ELIF GÜLBAHÇE MUTLU

PREVENTİON OF INCREASED BRAİN CORTEX DAMAGE BY ZİNC AND MELATONİN İN RATS WİTH BREAST CANCER İNDUCED BY DMBA

[1] Assist. Prof. Dr. ELİF GÜLBAHÇE MUTLU - Karatay Üniversitesi
[2] Research Assist SALTUK BUĞRA BALTACI - Selçuk Üniversitesi
[3] Prof. Dr. RASİM MOĞULKOÇ - Selçuk Üniversitesi
[4] Prof. Dr. ABDULKERİM KASIM BALTACI - Selçuk Üniversitesi

The aim of the present was study determine the effects of zinc and melatonin on brain tissue (cortex) lipid peroxidation in rats with breast cancer induced by DMBA. Wistar species, total 42 female rats which was just weaned from milk equally separated 5 groups. Group 1 control, Group 2 DMBA control, Group 3 DMBA+ Zinc, Group 4 DMBA + Melatonin, Group 5 DMBA + Zinc + Melatonin. To induce breasr cancer 80 mg/ kg DMBA was given by gavage in rapeseed oil (canola) except group 1. Zinc and melatonin were supplemented as 5 mg/kg/day for 4 weeks. Brain tissue samples (cortex) were examined for MDA and GSH be spectrofotometrics. The highest MDA levels were determined in group 2 which induced breast cancer ($p<0.05$). DMBA + zinc, DMBA + melatonin and DMBA+Zinc+ melatonin groups have lower MDA levels compared to DMBA control ($p<0.05$). GSH levels of zinc, melatonin and zinc + melatonin groups have higher than DMDA control group ($p<0.05$). The results of present study show that increased cortex damage by DMBA prevented by zinc, melatonin and zinc +melatonin. Combine supplementation of zinc and melatonin may contribute to preventing of tissue damage in tumoral condition.

Keywords: DMBA, Breast cancer, brain tissue, MDA, GSH, Zinc, Melatonin
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Corresponding Author: Assist. Prof. Dr. ELIF GÜLBAHÇE MUTLU