POLYPHENOLS EXTRA VIRGIN OLIVE OIL IMPROVES MINERAL PROFILE DISORDERS AND HEMATOLOGICAL PARAMETERS IN ACRYLAMIDE INTOXICATED RATS

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ABSTRACT

Our study investigated the protective efficacy of polyphenols extra virgin olive oil against acrylamide induced disorders in blood hematological parameters and mineral profiles in rats.
Animals were divided into four groups of six each: group 1, serving as controls, received distilled water; group 2 received acrylamide (40 mg/kg body weight) by gavage; group 3 received both acrylamide and polyphenols olive oil (1 ml) by gavage; group 4 received only polyphenols (1 ml) by gavage for 3 weeks.
Acrylamide treated group showed significant differences in several hematological parameters including red and white blood cells 'count, hemoglobin concentration, hematocrit value and platelets' counts. Moreover, there are changes in plasma levels of some trace elements such as iron, calcium, magnesium and Phosphorus.
Co-administration of polyphenols olive oil to treated rats restored changes in blood hematological and mineral profiles to near normal values due to their potent antioxidant power.

*Keywords: Acrylamide, rats, polyphenols olive oil, hematological and mineral profile*s.