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## Protective effect of husk tomato, nabk and sycamore against oxidative stress caused by hydrogen peroxide

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xidative stress has been shown to posses a role in many diseases. The risk affects caused by H2O2 on many biological systems have been studied. The oxidative stress induced by H<sub>2</sub>O<sub>2</sub> has been ameliorated by dried fruits as been mentioned. Fruits (Husk tomato, Nabk and Sycamore) have brought from Egyptian market and have been chosen for testing the potential effect on harmful role of hydrogen peroxide H<sub>2</sub>O<sub>2</sub> in chemical and histological parameters. The valuable fresh plants effects were compared to N-acetyl cysteine NAC, the standard valuable compound. Alkaline phosphatase ALP as indicator for liver dysfunction mechanism showed dramatic increase with H<sub>2</sub>O<sub>2</sub> treatment. NAC showed significant improvement followed by sycomore additives for rat diet. On the other hand, creatinine in the kidney profile showed insignificant increase value for hydrogen peroxide induction, and NAC was the most significant reliever among the tested groups. Hydrogen peroxide (100 mg/kg b.w.) significantly reduced the CAT value in correlation data with significant high MDA peroxidation indicator score for the oxidative stress. Husk tomato followed by sycomore or nabk proved to fail in reliving the oxidative stress effects in CAT and MDA values. NAC was the most potent factor in quenching the oxidative stress effect caused by H<sub>2</sub>O<sub>2</sub>. Hydropic degeneration of some hepatocytes has been found when treated female rats with H<sub>2</sub>O<sub>2</sub> accompanied with NAC oral injection. Slight vacuolation of epithelial lining renal tubules has been found with husk fruits as protective agents against oxidative stress, On the other hand, sycomore showed slight vacuolation of endothelial lining glomerular tuft. It was found that converted NAC is subsequently de-acetylated to Cys and supposed to be slowly released from the cells into the blood. Brain sections of rat from group Husk showed no histopathological changes and neuronophagia of necrotic neurons with dried Nabk fruit. Moreover, Sycomore showed cellular oedema.

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