

ROLE OF ACETYL SALICYLIC ACID TO OVERCOME TOXICITY OF PHENOLIC ANTIOXIDANT [BUTYLATED HYDOXY ANISOLE]IN ALBINO RATS

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Butylated hydroxy anisole [BHA] is a phenolic antioxidant. It is the most extensively used antioxidant in food industry as oil, margarine and butter. To determine the role of acetyl salicylic acid on reduction of BHA toxicity; thirty albino rats were divided into 3 groups. The first group was fed on ration containing 1%BHA for two months. The second group was fed on ration containing 1%BHA and 0.2% acetylsalicylic acid in drinking water. The third group was kept as control. On comparison to the control group, BHA increased levels of AST; ALT; and deoxy ribonucleic acid and lowered levels of total protein; albumin and globulin. Macroscopic and microscopic lesions were severe in liver and stomach in first group. Such toxic effects were somewhat reduced but not prevented completely by addition of acetyl salicylic acid. These results suggest that acetyl salicylic acid reduces the conversion of tert butyle hydroquinone [TBHQ] to Ter Butyl Quine [TBQ] [metabolites of BHA]. The latter is the more toxic but TBHQ also has some toxic effect.