

## Combined efficacy of tamoxifen (TAM) and thymoquinone (TQ) on the lipid peroxidation and the total antioxidant capacity and in DMBA induced mammary carcinoma in female Sprague-Dawley rats

**Nadiah Alotaibi**  
Eastern Washington University, USA

Reactive oxygen species play a major role in tumor promotion. My aim was to determine the efficacy of combined TAM and TQ on antioxidant status and lipid peroxidation in female rats with DMBA induced mammary tumors. TAM is a drug used to treat women with estrogen sensitive breast cancer, and TQ, from *Nigella Sativa* oil, is a Middle East natural medicine. My hypothesis was that the combination of TAM and TQ would increase the production of antioxidant enzymes and decreasing the lipid levels more than TAM or TQ alone. Five groups of 10 rats each (control, DMBA, DMBA+TAM, DMBA+TQ, DMBA+TAM & TQ) received DMBA (single dose) followed by daily treatments (TAM, TQ, none), by oral gavage. After 10 wk blood samples were collected by cardiac puncture. The total antioxidant capacity and the lipid peroxidation were measured by OxiSelect assay kits. Data were analyzed by the Kruskal-Wallis test.

### Biography

Nadiah Alotaibi received her Bachelor's degree in Botany & Microbiology from Dammam University, Saudi Arabia. Now she is a graduate student in the biology department at Eastern Washington University, USA. She is currently studying the combined efficiency of thymoquinone and tamoxifen against breast cancer.

[nadsal\\_82@hotmail.com](mailto:nadsal_82@hotmail.com)