

# Abstract

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## **Co-enzyme Q10, riboflavin and niacin supplementation on alteration of DNA repair enzyme and DNA methylation in breast cancer patients undergoing tamoxifen therapy.**

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**OBJECTIVE AND METHODS:** In the present study, eighty-four breast cancer patients were randomized to receive a daily supplement of 100 mg co-enzyme Q10, 10 mg riboflavin and 50 mg niacin (CoRN), one dosage per d along with 10 mg tamoxifen twice per d.

**RESULTS:** A significant increase in poly(ADP-ribose) polymerase levels and disappearance of RASSF1A DNA methylation patterns were found in patients treated with supplement therapy along with tamoxifen compared to untreated breast cancer patients and tamoxifen alone-treated patients.

**CONCLUSION:** An increase in DNA repair enzymes and disappearance of DNA methylation patterns attributes to reduction in tumour burden and may suggest good prognosis and efficacy of the treatment.

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