

Inhibition of carcinogen induced c-Ha-ras and c-fos proto-oncogenes expression by dietary curcumin

ABSTRACT

Our research has revealed that curcumin can significantly reduce DMBA- and TPA-induced ras and fos gene expression in mouse skin.

INTRODUCTION

Carcinogens are the most common cause of cancer worldwide. In the last decade, many studies have been published that suggest that curcumin may be able to inhibit cancer-causing molecules and modulate the pathogenesis. The aim of this study was to examine the effect of curcumin on c-Ha-ras and c-fos proto-oncogenes expression in human breast cancer cells.

Methods:

The study was carried out on a human breast cancer cell line derived from a patient with metastatic breast cancer. The cells were treated with 2 mg/ml curcumin, and then the expression of C-ha-ras and C-fos proto-oncogenes was determined by Western blotting. The yellow pigment turmeric, also known as curcumin, is derived from the roots of *Curcuma longifolia* and is used in various Asian cultures as a spice, cheese, butter, or other products. It has antioxidant, free radical and inflammatory properties that allow it to inhibit carcinogenesis.

CONCLUSION

Through topical application on mouse skin, Kakar and Roy found that curcumin inactivates TPA-induced oncology by inhibiting c-fos, junctomycis and a co-extensor oncobacteria. Their study concludes that dietary curcumin is effective in blocking DMBA- inducer of ras and fos gene expressions in mouse tissue, as it may prevent folic acid from entering specific sites on the signal transduction pathway (for example, T