

9th International Congress on

Nutrition & Health

February 20-21, 2017 Berlin, Germany

Regulation of NF- κ B by dietary curcumin in ovarian cancer

Kazim Sahin¹, Cemal Orhan¹, Mehmet Tuzcu¹, Nurhan Sahin¹, Hakki Tastan², Ibrahim Hanifi Ozercan¹, Osman Guler³, Nermin Kahraman⁴, Omer Kucuk⁵ and Bulent Ozpolat⁴¹Firat University, Turkey²Gazi University, Turkey³Veterinary Control Research and Institute, Turkey⁴University of Texas, USA⁵Emory University, USA

Ovarian cancer is the most lethal gynecological cancer with 30% 5-year survival rate. High mortality rate is attributed to lack of early diagnostic tests and effective curative therapeutic regimens. Curcumin, a polyphenolic compound found in turmeric products, has been shown to be associated with reduced cancer incidence in populations consume high turmeric in their diet. Nuclear factor kappa B (NF- κ B) signaling is currently recognized as a useful strategy in cancer treatment and prevention. However, a direct link between curcumin intake and regulation of NF- κ B in ovarian cancer is yet to be established. Here, we investigated the effect of daily dietary curcumin intake on the NF- κ B pathway of spontaneous ovarian cancer in a hen model, the only non-human animal that spontaneously develops cancer with a high prevalence. At the end of 12 months, the analysis of the tumors revealed that NF- κ B signaling were significantly inhibited by curcumin intake in a dose-dependent manner ($P < 0.05$). In conclusion, the results of our study demonstrated for the first time that daily curcumin intake leads to a significant and dose-dependent inhibition of NF- κ B signaling in the development of spontaneous ovarian cancer indicating a tremendous role of curcumin as a chemo preventive strategy against ovarian cancer.

nsahinkm@yahoo.com

Notes: