

Poster presentation

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Ultraviolet B light initiating activity of two-stage mouse skin carcinogenesis and its regulation of cGMP

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Ultraviolet (UV) light is the most common cause of skin cancer in humans and it is very cute problem in our life style. Several effects of UVB (290–320 nm) are thought to contribute to skin carcinogenesis. The generation of free radicals and related oxidants produced by UVB exposure. The UVB induced release of biologically active NO from these skin located stroes of NO-donors is biologically relevant and modulates several cellular process, and it increases cGMP formation that converts GTP in a NO-dependent manner. *Tabebuia avellanedae* (Bignoniaceae) (TA), which is native in South America from Brazil to northern Argentina, is well known in traditional folk medicine used for the treatment of various disease during five hundred years. The inner bark of this plant produced in Brazil is distributed in Asia as a herb tea and healthy purpose. Previously, we reported that extract essense of TA (TA ess.) and including naphthoquinones type compounds, NFD, inhibited TPA-induced *in vitro* assay. The present study purposed to evaluate for *in vivo* activity, using natural sourced materials. We have now extended these investigations to a new tumorigenesis model in which we initiated the tumors with UVB irradiation and promoted with 1.7 nmol of TPA in SENCAR mice. Oral feeding of 00025% of TA ess. two weeks before and after tumor initiation resulted in a highly significant reduction in tumor incidence (40%) accompanied by an extension (>20%) of the tumor latency TA ess. treatment also decreased the papilloma incidence and multiplicity when compared with the control and treatment during 20 weeks of the promotion. These results provide a basis for further

development of TA ess. for human chemoprevention. To investigate the inhibitory effects of *Tabebuia avellanedae* and its effect of cGMP levels in mouse surface skin protein. cGMP contents was measured and protein expression was visualized by Western blotting analysis of MAP pathway. We posturate that these data suggest possible role of cancer main pathway and cGMP as regulatory mechanism of potent activity in UVB induced carcinogenesis.