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Letter to the Editor

Letter to the Editor on "Synthetic cyclohexenyl chalcone natural products possess cytotoxic activities against prostate cancer cells and inhibit cysteine cathepsins in vitro"

I read with great interest the recent article by Deb et al. [1]. Interestingly, recent data suggests that besides its modulatory effects on inflammation, panduratin A also has a significant inhibitory effect on a number of systemic cancers.

For instance, panduratin A causes apoptosis in non small cell lung cancer cells. This is proved by the fact that it inhibits growth in A549 cell lines [2]. Besides accentuating apoptosis panduratin A also inhibits cytoplasmic to nuclear translocation of Nuclear Factor-kappa Beta thus further have a negative impact on neoplastic growth in lung tissue.

Similarly, panduratin A exhibits anti proliferative effects in pancreatic cancer cells. For instance it induces growth inhibition in PANC-1 cell lines [3]. Similarly, panduratin A enhances apoptosis in colon cancer cells. Besides this panduratin A is also a strong inhibitor of cyclooxygenase-2 and also causes further cleavage of cleavage of poly (ADP-ribose) polymerase thus further mitigating tumor growth in colon cancers [4]. These effects are clearly seen in HT-29 colon cancer cell lines.

Similarly, panduratin A induces G2/M arrest in prostate carcinomas. These growth inhibitory effects are mediated by virtue of its time and dose dependent attenuation of cyclin D1 levels as well as by virtue of its down regulation of cdk 4 [5]. These anti proliferative effects are clearly seen in androgen independent human prostate cancer PC3 cell lines.

The above examples clearly illustrate the potent anti-neoplastic effects of panduratin A and the need for further studies to fully evaluate its anti-proliferative properties.

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