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ORAL

New strategy in development of cancer chemopreventive agent using Malaysia Plant

Azman Seeni[1,2]

[1]Malaysian Institute of Pharmaceuticals and Nutraceuticals, National Institutes of Biotechnology Malaysia

[2]Advanced Medical and Dental Institute, Universiti Sains Malaysia

Abstract

Cancer had become worldwide problem that efforts in prevention and treatment of cancer had rapidly grew in any research institute. Meanwhile, epidemiological studies have demonstrated a positive correlation between consumption of vegetables, fruits and beverages with reduced risk of cancer. It is estimated there are around 8,100 plant species in the Malaysia rain forests, with 10% of them reported to have some medicinal value. However, to date not much investigation has been done on chemopreventive activities on cancer. Therefore, we had studied the chemopreventive activity using various type of local plants such as Christia sp, Nephelium lappaceuem, Cocos nucifera and many more others which we going to present here. But, to combat with this miserable disease, we still need new strategies to overcome the problem and we also utilized the waste product from our tropical fruits and Paddy waste which might have beneficial effect towards cancer chemoprevention activities. We also going to present our strategy in developing mouthwash product to prevent oral cancer using bonsai plant, Streblus asper with demonstrable efficacy against defined molecular target on cancer cell line as well as in animal models. It is clearly shown that S. asper root extracts that have the anti-oxidant characteristic with analgesic properties via Inositol, not only kill oral-microbes but interestingly also inhibit the growth of osteosarcoma cells, tongue carcinoma cells and cervical cancer cells. The inhibition effect was through the induction of apoptosis signaling pathway. This mouthwash product also is non-toxic for the liver, kidney and skin fibroblast cells and no heavy metals were found. Currently, we now focused the use of the same product on cervical cancer and might develop it as a ladies hygiene product which act as chemopreventive agent. Futhermore S.asper also can suppressed the proliferative activity of the epithelium cells in Benign Prostate Hyperplasia animal model. Lets combat the cancer disease using new strategies.

*For correspondence:

azmanseeni@gmail.com

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