

Activity results of the anti-cancer plant *Typhonium divaricatum*

To the Editor—In response to claims by cancer patients about the efficacy of a certain local plant, I decided in 1990 to send fresh specimens of the plant, *Typhonium divaricatum* (Rodent tuber, as it is locally known) to the National Cancer Institute (NCI) in the United States to have its extract tested for anti-cancer properties. The first results showed that the fresh extract had a marked effect on human cancer cell-lines from leukaemia, colon, and melanoma sources. A reduced or insignificant effect was noted in the other cell-lines on the panel—the lung small-cell, lung non-small-cell, central nervous system, ovarian, and renal lines.

In the pre-screen conducted at the NCI, each extract of the plant was tested against the full panel of human cancer cell-lines at a concentration of 100 µg/mL. Destruction of the leukaemia, colon, and melanoma cells was impressive.

The plant thus qualified for the next phase of testing at the NCI, which serially diluted the extract and tested for activity at each dilution. On dilution, the plant extract was found to have greatly reduced potency against the nine human cancer cell-lines (leukaemia, lung non-small-cell, colon, CNS, melanoma, ovarian, renal, prostate, and breast) on the panel. As the NCI has seen such activity profiles in many other plants, it cannot devote further resources to the study of this particular plant. Because of the above results, *T. divaricatum* cannot be recommended as a primary treatment for cancer. For incurable, but not terminally-ill cancer patients who have been told that no further treatment is available, this plant perhaps offers some hope. It would be interesting to find out how clinical results compare with the above in vitro effects of the plant.

This plant is readily found in southeast Asia, growing wild in soggy places such as near streams. It is

also grown in many household gardens for its medicinal value. At maturity, the plant is approximately 1 foot high, with its flower ending in a long filament resembling the tail of a mouse—hence its lay name, rodent tuber.

To prepare the extract, one should take about 10 leaves (stalks), with or without roots and tubers, wash them thoroughly, pound, and extract the juice through cloth. The extract should be mixed with honey and drunk fresh. As the plant juice causes intense itch on bare skin, one should wear gloves while preparing the extract. Pruritis can be treated by rinsing the affected parts with sugary water. Dosing should initially be three times daily. This can be gradually reduced to twice weekly and maintained for an indefinite period.

I wish to acknowledge with gratitude the participation of Dr Gordon Cragg of the NCI, who was instrumental in conducting the tests on *T. divaricatum*.

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(Copies of 3 figures available on request)

Comment: According to Chinese medicinal practice, this plant is only for external use and not intended for oral intake. It has been used to assist in wound healing and to treat skin cancers.

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