Immunomodulating potential of vegetables in Nutrition Education & Research

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Immunomodulating effect of medicinal plant extracts used in Ayurvedic treatments have been reported by us recently. The study subsequently included tests with vegetable extracts, as some of these are often recommended by ayurvedic physicians along with their treatments.

In this study lyophilised water extracts of these vegetables were investigated for their effect on the alternative and the classical pathway of human complement system in vitro, using the rabbit erythrocytes and the sensitised sheep erythrocytes hemolytic system respectively. Of the ten vegetables tested Basella alba, Centella asiatica, Laffa acutengula, Lassia spinosa, Musa acuminata showed the ability to modulate the activity of both pathways above a 20% level. While, Beniscasa hispida, Cucumis pubascens, Mormodica charantia and Trochosanthus anguina were effective only on the alternative pathway. The highest modulating ability on the alternative pathway was shown by Laffa acutangula ($AP_{50}$of-43.9), while Musa acuminatea above measurable limitsat the tried concentrations, and the rhysome of Lassia spinosa (CP_{50}of0-46.2) ranked as a strong inhibitor of the classical pathway of activation.

We believe that these results are indicative of an hitherto unnoticed effect of foods which warrents further and detailed investigations with regard to specific components, effect on other in vitro and in vivo systems which perhaps may leed to developing immunomodulating diets. The use of those diets in relation to nutrition in health and diseases in Sri Lanka will be discussed.

References

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