A Commentary on a Possible Predisposition to Tuberculosis through the Consumption of an Immunosuppressive Food Material of Plant Origin

SN Arseculeratne*  
Emeritus Professor of Microbiology, Faculty of Medicine, University of Peradeniya, Sri Lanka

*Corresponding author: Arseculeratne, Emeritus Professor of Microbiology, Faculty of Medicine, University of Peradeniya, Sri Lanka, E-mail: chubby@sltnet.lk

During research on the hepatotoxic properties of plant materials as foods and medicines, we discovered that the flour from the boiled, dried, young shoot of the Palmyrah palm (Borassus flabellifer L) [1], produced immunesuppressive effects in mice and rats affecting both the humoral and cell-mediated adaptive immune systems [2,3]. These effects were transferable to syngeneic mice through splenic T-cells probably of the Suppressor Sub-class.

These results were communicated to European scientists who wrote to me confirming our findings of immune suppression.

These results prompted the question- could the consumption of this plant material in South Indian and in Sri Lanka where this palm is grown and the young shoot eaten, predispose consumers to tuberculosis through immune-depression? As far as I am aware there is only one Tuberculosis Research Centre, in South India, in Chennai, Tamil Nadu, South India, but I am unaware of whether they have investigated this problem.

A preliminary experiment was done with mice fed on this flour, and then when Immunosuppression was evident through the foot pad response to sheep red blood cells, avirulent BCG was administered systemically. There was however no evidence after 2 weeks feeding of 40 % flour-pellet mixtures, of the dissemination of the BCG. Further experiments with higher doses of the flour and longer periods of feeding are planned.

References

Keywords: Palmyrah palm; Immunosuppression; avirulent BCG