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Evaluation of Immuno-Stimulant Action of Prickly Pear Fruit Juice *In-Vitro*

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Abstract : Immune system is the main defense mechanism of our body. Strengthening of the immune system is nowadays the major research target of the researchers, as there is a dire need of new safe, economical immune stimulant which is readily available to the common people. Currently, the plant Prickly Pear is reported to possess Immuno-Stimulant activity due to its phytochemicals. The aim of the research was to evaluate immuno-stimulant action of Prickly pear fruit juice *in vitro*. Prickly pear fruits are collected from local market of Tramba (Gujarat-India). The seed free juice of the fruits prepared and immunostimulant action of prickly pear is evaluated using *In-vitro* Phagocytosis test. Confirmation of immuno-stimulant action of prickly pear is done using nitro blue tetrazolium dye test. Anti-oxidant and free radical scavenging potential of Prickly pear perusing DPPH and H₂O₂ test. And Statistical analysis is performed. The results of Phagocytic activity data indicate were significantly different when compared with control and level of significance which was P>0.001. As per DPPH model, indicate that result data were significantly different when compared with control and level of significance which was P>0.001. H₂O₂ model indicate that data were significantly different when compared with control and level of significance which was P>0.001. Thus, Immunostimulant and free radical scavenging activity were confirmed. According to the obtained results, we can conclude that prickly pear possesses strong immune-stimulant potential as well as better free radical scavenging potential.

Keywords : Anti-oxidant, Free radical Scavenging potential, Fruit Juice, Immunostimulant, *Opuntia ficus indica*, Phagocytic action.

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