

Pharmaceutical Sciences : Contemporaries

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Preface

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A Comprehensive Overview on Immunomodulators

Gazala Noor & Dr. Badruddeen¹, Dr. Bhuwanendra Singh,
Dr. Vaishali & Dr. Arvind Kumar², Dr. Alimuddin Saifi³, Anand
Maurya⁴, Dr. Jitendra Gupta & Dr. Reena Gupta⁵

Abstract

To maintain the immunity in the current scenario is a vast challenge for the humans, because of busy life style as well as pollution day by day spoiling the environmental conditions those are suitable for the all living beings, hence in the context to disease free health, a long-life strong immunity is very needful to all age group of persons. Thus, a part of active immunity, our immune system can be boost up by passively too, by the humans. Beyond these two types of immunity several other factors are also used to developed the strong immunity such as exercise, and use of immunomodulators, whether they can be obtained from synthetic or natural sources. There are certain factors are responsible for poor immunity such as food, water, stress, environment, etc. So, after taking proper food still many people need

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nutrients to modulate their immune system for combating the several diseases, like cancer, various viral and bacterial infections. Some of the herbal immunomodulators are, turmeric, piper, sitaphal, aloe, garlic, kiwi fruits, soyabean, green tea, Ashwagandha etc. some nutraceutical is also a good option for improving the immunity such as dietary fibers, probiotics, antioxidant vitamins, spices, flavonoids. Further if we talk in the sense of clinical then immunomodulators may be classified as Immunoadjuvants, Immunostimulants, Immunosuppressants. Thus, there are several bioactive molecules those are capable to show the activity to strengthen the immune system such anthocyanins, Saponins such as ginsenosides, panaxdiol, panaxtriol, Coumarin, carbazole alkaloids, glycosides and many more.

Keywords: Immunomodulators, Immunoadjuvants, Anthocyanins, Saponins, Ginsenosides.

1. General Introduction about Immunity and Immune System

This is very clear that there is a strong relationship between human beings and animals. Now as we are living in the current era it shows a vast change from ancient time especially concerned with the change in environment that leads in enhancement of the various disorders and increase in the preexisted diseases too, in all over the world. Continuously changes have been recorded in the human genetics due to several factors such pollution, modern life style, mutation occurred in the viruses and bacteria, etc. utilization of chemicals is very frequent in the agriculture practices, due to which pesticide residue is found beyond the prescribed limits in the crops and vegetables & it leads toxicity to the humans as well As animal health. Hence to fight against all pathogens and diseases immunity plays a very important role. Immunity is found natural in the body but in several cases, it can also be increased by introducing immunomodulators from outside, in the form of nutraceuticals, vitamins, minerals, and sometimes immunization & by yoga and exercise.