Integration of Herbal drugs with modern medicine to combat covid-19 and future pandemic

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INTRODUCTION

The immune system is our most pivotal ally, and its main function is to keep us healthy and robust. If we eat foods which are completely pure and full of vitamins, enzymes and minerals, our immune system will be able to continue its battle against viruses, harmful bacteria, parasites and toxins. The idea of boosting your immunity is enticing, but the ability to do so has proved elusive for several reasons. The immune system is precisely that — a system, not a single entity. To function well, it requires balance and harmony. There is still much that researchers don't know about the intricacies and interconnectedness of the immune response. Nature has blessed mankind with abundant medicinal herbs which provide timely and adequate remedies to several health disorders. The medicinal herbs enable the people to boost their immunity in times of health crisis like novel coronavirus. The people are required to know the new concepts of quarantine and self isolation while trying to make use of medicinal herbs which boost immunities. It is necessary to understand the correlation among medicinal herbs, immune system and COVID-19 in the present times. In the wake of the COVID-19 outbreak, the development, maintenance and optional functioning of immune cells are dependent on adequate nutrition.



NATURAL IMMUNE BOOSTERS

CUMIN:

- Numerous medicinal properties
- Used to treat several disorders
- Bactericidal, bacteriostatic, fungi- static, antifertility, anthelminthic and other medicinal properties and also believed to aid digestion.



BLACK PEPPER

- A study showed that the growth of several bacteria types was inhibited when black pepper was introduced. It was concluded that black pepper may contain not only anti-inflammatory, antioxidant, anti-bacterial and fever reducing actions but immune system enhancing properties.
- Review study: Findings strongly suggest that black pepper and cardamom exert immunomodulatory roles and antitumor activities, and hence they manifest themselves as natural agents that can promote the maintenance of a healthy immune system.

CAROM SEEDS (AJWAIN):

- Ajwain extract would reduce the toxicity resulted from hepatic free radical stress.
- It is now proved - Ajwain increase the secretion of gastric acid, bile acids and activity of digestive enzymes.
- It may also reduce the food transient time. As the enzyme modulatory activity.
- Reinforced the pancreatic lipase and amylase effectiveness, which may support the digestive stimulant activity.
- Ajwain seeds inhibited the platelet aggregation induced by arachidonic acid, collagen and epinephrine.
- Diuretic and Anti-lithiasis Activity.

FENUGREEK SEEDS:

Immunomodulatory activity of aqueous extract of Trigonella foenum graecum L., a widely used medicinal and dietary herb, was evaluated in male Swiss albino mice. Showed a stimulatory effect on immune functions in mice. As it is used for a variety of medicinal purposes.



GINGER:

- Anti-inflammatory, anti-oxidative, ginger, reactive oxygen species.
- Used for the treatment of diseases and conditions, such as inflammatory and respiratory ailments
- **Study** : Beneficial effects of an ginger extract on the immune system cells and antibodies, hematology, and thyroid hormones in male smokers and non-smokers.
- Thus ginger may be beneficial for smokers with anemia. Non-smokers had increased mean IgM levels, which may lead to a stronger antibody response, or humoral immunity, against infections. Therefore, the aqueous ginger extract had benefits for both smokers and non-smokers.

TURMERIC :

- Curcumin is an orange-yellow component of turmeric, a spice often found in curry powder .Traditionally known for its an anti-inflammatory effects.
- Curcumin has been shown in the last two decades to be a potent immunomodulatory agent that can modulate the activation of T cells, B cells, macrophages, neutrophils, natural killer cells, and dendritic cells.
- So consideration of curcumin as a therapy for immune disorders.



CONCLUSION

- Traditional medicine has been a productive resource for revealing novel lead molecules for modern drug discovery. Consequently, natural products derived from medicinal herbs are potential candidates for immune boosting therapeutic drugs.
- In summary, take all the above foods for maintaining a robust immunity defense as well as reaching a healthy weight. Also, do take multivitamins and mineral supplements as appropriate; exercise at least 30 minutes each time, 4 times a week, and sleep 7-8 hours every

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