

Microbes and Antimicrobials: Unmet Needs and New Horizon from Ayurveda

The concept of microbiology can be traced back to the Vedic period which has highlighted the existence of microbes as invisible/microorganisms having specific sole character. In Ayurveda, the microbes as *Krimi* are classified as *Sahaja* (nonpathogenic) and *Vaikarika* (pathogenic) as *Bahya krimi* (external microbes) or *Abhyantara krimi* (internal microbes). These may be originated from *Malaja* (sweat, dirty clothes, etc.), *Raktaja* (blood), *Kaphaja* (stomach) and *Purishaja* (intestine). With such a vivid description of microbes, the aspect of management of pathogenic microbes is also well mentioned.

During ancient period, *Rakshoghna dhoopana* (fumigation) has been used for the sterilization of pharmacy (*Rasayanshala*) and operation theater (*Shastragara*), etc. In Ayurveda, generally the antimicrobial activity incorporates *Visaghna*, *Vranashodhana*, *Vranaropana*, *Krimighna* and *kleda-puyopashosana* pharmacological attributes. At the same time, impetus is given on the preventive aspect by enhancing body's defense mechanism (*Vyadhikshamatwa*).

Due to advent of vast range of potential antimicrobials, the use of Ayurveda medicines for management of microbes somehow vanished. Nevertheless, commonly available plants such as *Tulasi*, *Shunthi*, *Maricha*, and *Haldi*, etc. used to be the remedial measures among public. The scientific exploration of medicinal plants has yielded to potent antimicrobials but still the spectrum of their therapeutic potential is yet to be established. The mounting antimicrobial resistance has also made the scientific fraternity to search for better options from natural sources considering the benefit–risk analysis.

In the wake of the current COVID-19 pandemic and outbreaks of recent vector-borne diseases, it is the need of the hour to tap the potential of Ayurveda medicines as antimicrobial as well as to look into its prophylactic aspect in order to find long-standing solutions.



Prof. Vaidya Kartar Singh Dhiman

Editor-in-Chief

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Director General

Central Council for Research in Ayurvedic Sciences

Ministry of AYUSH, Government of India, New Delhi, India