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Dr. Mangala Hegde

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Title - Curcumin formulations: Next generation therapeutics for human diseases

Abstract - Turmeric, commonly known as 'curry powder,' has been widely used in daily dietary practices and traditional medicines across several countries since ancient times. The consumption of turmeric within the range of 500 mg to 12 grams per day has exhibited safety, with no recorded adverse effects in healthy individuals. A principal bioactive component of turmeric, curcumin, renowned for its therapeutic potential in the amelioration of various human ailments. The United States Food and Drug Administration (FDA) has conferred its approval upon curcumin, designating it as Generally Recognized as Safe (GRAS). A comprehensive body of research, encompassing more than 600 clinical trials, has been undertaken to investigate the effectiveness of turmeric, curcumin, and their derivatives in addressing a wide spectrum of human ailments. Nevertheless, the significant challenge to curcumin's pharmacological utility pertains to its limited bioavailability, a critical factor in its consideration as a pharmaceutical agent. To circumvent this constraint, innovative approaches have emerged, including formulations combining curcumin with other compounds or tailored preparations, exhibiting enhanced bioavailability. Notably, various generations of curcumin formulations, spanning first, second, and third generations, have exhibited remarkable bioavailability and proven efficacy in the treatment of chronic and life-threatening diseases. Consequently, the impediment of bioavailability no longer stands as a barrier within the realm of curcumin-mediated therapeutic interventions for chronic ailments. In the present talk, we endeavor to provide a comprehensive summary of the efficacy of curcumin and its advanced formulations in the management and treatment of a diverse array of human diseases.