



RESEARCH PAPER

To study the therapeutic role of Indian spices in the treatment of gastrointestinal disease caused by *Vibrio* species

ARADHANA IRENE CHARAN, AMIT ALEXANDER CHARAN, VINEETA GURNANI AND PRATEEK SINGH

Department of Molecular and Cellular Engineering, Sam Higginbottom Institute of Agriculture, Technology and Sciences, ALLAHABAD (U.P.) INDIA
Email : aradhanairenecharan@gmail.com

Article Info :Received : 05.12.2015; Accepted : 5.02.2016

Vibrio causes cholera with other major gastrointestinal disease which is very fatal and in this study we have analyzed whether the medicinal effects of these spices, which are used on daily basis, can minimize the activity of *Vibrio* species. In project named, "To study the therapeutic role of Indian spices in the treatment of gastrointestinal disease caused by *Vibrio* species" five of the spices were selected. They were *Hing* (*Ferula assa*), *Jeera* (*Cuminum cyminum*), black pepper (*Piper nigrum*), *Saunf* (*Foeniculum vulgare*), black mustard (*Brassica nigra*) based on the studies and research made on their medicinal values. In order to determine the antimicrobial activity/effect of spices bacteria *Vibrio* and its species were selected. The antibacterial activity of the extracts of all the spices were screened by analyzing the effect on the growth of *Vibrio* species through their zone of inhibition produced. Aqueous effects of all five spices were obtained using two solvents ethanol and methanol extraction with the concentration of 85 per cent and 100 per cent. The liquid portion of extract was collected and rest was discarded. Antibacterial studies were investigated using agar well diffusion method to determine the effect of these spices against the *Vibrio* species. The study confirmed the antioxidant activity and property of spices extracted.

Key words : *Vibrio*, *Ferula assa*, *Cuminum cyminum*, *Piper nigrum*, *Foeniculum vulgare*, *Brassica nigra*, *Syzygium aromaticum*

How to cite this paper : Charan, Aradhana Irene, Charan, Amit Alexander, Gurnani, Vineeta and Singh, Prateek (2016). To study the therapeutic role of Indian spices in the treatment of gastrointestinal disease caused by *Vibrio* species. *Asian J. Bio. Sci.*, 11 (1) : 12-16 [Special Issue of AFBSAH-2016].