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Mycoviruses infecting human pathogenic fungus

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Candida albicans is widespread yeast; the infections can be short lived, superficial skin irritations to devastating, fatal Systemic diseases. The confirmation of viruses in fungi commonly called Mycoviruses or VLP's. In present study, this human pathogenic fungus was screened for the presence of virus like particles (VLP's). Negative staining and transmission electron microscopy positively indexed this fungus for the presence of VLP's. The concentration of VLP's is good and the particles are isometric in shape with 40 to 66 nm in size. Further, treated with cycloheximide (50 µg/ml) revealed the complete elimination of VLP's. Extraction and purification of nucleic acid from CF 11 column chromatography gave positive results whereas extraction from SDS phenol was found to be unsuccessful. For establishing the nature of nucleic acid, RNAse and DNAse treatment was followed. DNAse treatment and high salt (1SSC) did not revealed any band in *Candida albicans* whereas low salt (0.01SSC) RNAse test of *Candida albicans* reveals a band which concluded that the nature of nucleic acid is dsRNA. Subsequently, thermo melting confirms the nature of nucleic acid. Current finding may help in understanding and using the dsRNA mycovirus in fungal bio-control, fungal infections and also magnifies our knowledge of virus ecosystem and development.

Biography

Sakshi Sharma is currently working as a UGC Junior Research Fellow/PhD Scholar from DEI. Her study basically includes screening, identification, transmission, purification and characterization of mycoviruses. She got best paper presentation/young system scientist award in the conference, Paritantra (System Society of India) in 2013. She received International Travel Grant Award by Science and Engineering Research Board (SERB), under the Department of Science and Technology (DST), New Delhi as a Young Scientist in 2011 to present an oral paper in International Conference, Autoimmunity Congress Asia (ACA), Singapore. She has papers published in Indian and International SCI journals.

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