ABSTRACT

The family *Paramyxoviridae* has a long list of large enveloped RNA viruses containing negative-strand non-segmented RNA genome. These viruses can badly infect the birds, mammals, fish and reptiles. Most of these are host-specific and some are pathogenic for humans. Among these Newcastle Disease Virus poses the huge economic threat to the poultry industry of the world. Available vaccines do not show good results against this virus. This virus contain many strains with varying range of virulence character. The sequences in nucleoprotein are highly conserved and highly immunogenic among various strains. Nucleoprotein is structural protein which play an important role in virus replication process. This study was designed to screen the antiviral phytochemicals from plant family *moringaceae* that may act as potential inhibitors against Nucleoprotein. Because inhibiting this protein may stop the viral replication process. In this way disease can be controlled. About 22 phytochemicals were screened based on their Absorption, Distribution, Metabolism, Excretion and Toxicity properties. Molecular Docking was done to see the binding affinity of these phytochemicals with the target protein. Results shows that cis-11,14-Eicosadienoic acid methyl ester, Aurantiamide acetate, Alpha-Tocopherol, 4,8,12,16-Tetramethylheptadecan-4-olide, 3,7,11,15-Tetramethyl-2-hexadecen-1-OL, Beta-amyrin, β-Sitosterol-3-O-β-D-galactopyranoside, alpha-amyrin, Pterygospermin and sitogluside are the most recommended phytochemicals found in the medicinal plant family *moringaceae* as potential inhibitors of Newcastle disease virus.