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Investigating the Combined Medicinal Effects of Withania Somnifera (Ashwaghandha) and Murraya Koenigii (Curry Pata) in Vitro

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Abstract : To evaluate synergistic medicinal effects of Withania somnifera (Ashwaghandha) and Murraya koenigii (Curry pata) in vitro. Antimicrobial activity was determined using the disc diffusion method against five bacterial and two fungal strains. The antioxidant activity was evaluated by the DPPH assay. The antidiabetic activity was evaluated by alpha-glucosidase inhibition assay and alpha-amylase inhibition assay. Synergistic antibacterial activity was observed against all the strains of bacteria, either Gram-positive or Gram-negative and fungi under study conditions. The maximum antibacterial activity was displayed by combined extract against E. coli i.e. 26±0.4mm. Maximum antifungal activity was shown by combined extract against Aspergillus niger, i.e., 17.3±0.5mm. The antioxidant activity of the combined extract was also significant. Alpha-glucosidase inhibition and alpha-amylase inhibition assays also showed synergism. Results indicate that Withania somnifera and Murraya koengii have medicinal properties. The combined extract of both plants is more potent than their individual extracts, suggesting that these can work in synergism. The research suggests that different plant extracts could be used in combination to increase their medicinal activities by many folds, thus giving an insight into future use of herbal medication.

Keywords : withania somnifera, murraya koenigii, antimicrobial activity, gram-positive bacetria, gram-negative bacteria
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