

***In vitro* validation of antimicrobial activity of Sanjeevani vati against common diarrheal pathogens**

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Sanjeevani vati is a polyherbal ayurvedic drug comprising constituents of plant origin and cow urine. It is used in the treatment of severe fever, indigestion, abdominal distension, diarrhoea and snake bite. The present study was conducted to determine the antimicrobial activity of Sanjeevani vati against common diarrhoea-causing pathogens: *Escherichia coli*, *Salmonella enterica* Typhimurium and *Shigella flexneri*. Aqueous and methanolic extracts of eight different variants of Sanjeevani vati, differing in the quantities of cow urine, were tested for their antibacterial activity. Aqueous extracts exhibited no antibacterial activity against any of the tested pathogens. Methanolic extracts of different variants of Sanjeevani vati showed antimicrobial activity, and zones of inhibition (ZOI) were significantly ($P < 0.05$) higher in agar well diffusion assay compared to the disk diffusion method. In agar well diffusion assay, methanolic extracts of four variants showed significantly higher antimicrobial activity against the tested bacterial strains, i.e. *E. coli* (ZOI: 19.50 to 21.00 mm), *S. Typhimurium* (ZOI: 15.00–16.66 mm) and *S. flexneri* (18.16–19.66 mm) compared to the other extracts. The present *in vitro* study validates the antimicrobial activity of Sanjeevani vati.

Keywords: Agar well diffusion, antimicrobial resistance, Ayurveda, Sanjeevani vati.