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## *Trigonella foenum-gracum* and *Murraya koenigii* Extract Herbal Gel: Formulation and Development

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**Abstract** : The present research has been undertaken with the aim to study the antimicrobial activity of *Trigonellafoenum-gracum* and *Murraya koeniggi* extract and formulation, development and evaluation of its herbal gel. *Trigonellafoenum-gracum* and *Murraya koeniggi* extract, reported antibacterial action against gram negative and gram positive bacteria. MIC of *Trigonellafoenum-gracum* extract for *E.coli* and *S. aureus* was found to be 333 and 125 ug/ml respectively. Similarly the MIC of *Murraya koeniggi* extract for *E.coli* and *S. aureus* was found to be 750 and 250 ug/ml respectively. Further, the gel formulation was designed by using Carbapol 940p, *Trigonellafoenum-gracum* and *Murraya koeniggi* extract propylene glycol, methyl paraben, polyethylene glycol, polyvinyl pyrrolidone, triethanolamine and required amount of distilled water. The pH was maintained 6.8-7 by drop wise addition of tri-ethanolamine. The physicochemical parameters of formulations were evaluated by pH, spreadability, appearance, viscosity and *in-vitro* drug diffusion study using franz diffusion cell. The *in-vitro* drug diffusion study showed 77.7 % for *Trigonella foenum-gracum* and 75.0 % for *Murraya koeniggi* release from formulation.

Key Words : *Trigonella foenum-gracum* and *Murraya koeniggi* extract, herbal gel, antimicrobial activity, *E.coli, S. aureus*, MIC.

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