DEVELOPMENT OF ANTISEPTIC FEMININE WASH FROM ISOLATED TANNINS OF TAMARIND (TAMARINDUS INDICA L., FAMILY LEGUMINOSAE) LEAVES EXTRACT

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Background Pharmacological investigations on Tamarindus indica reported that have antibacterial, antifungal, anti-inflammatory and antioxidant activities.
Objectives  However a feminine wash from a natural product was lacking therefore, the researchers embarked on this study.

Methods  The method of extraction was maceration, using methanol as solvent and ethyl acetate as an isolating solution.

Result  Organoleptic test revealed that the isolated tannins is yellowish brown, fine powder with Tamarind odor. Confirmatory tests showed that it has hydrolysable tannins. Minimum inhibitory concentration indicates that 125ug/mL concentration of isolated tannin was susceptible to, Escherichia coli, Staphylococcus aureus, and Serratia marcescens while 62.5 ug/mL in Candida albicans. Ampicillin was used as standard antibiotic drug and Fluconazole for antifungal drug. Paper disc diffusion method showed that antibacterial property is active against Staphylococcus aureus (16 mm) followed by Escherichia coli and Candida albicans (both 15 mm) and partially active against Serratia marcescens (13 mm).

Differential scanning calorimetry profile of excipient (Sodium lauryl sulphate) signifies a compatibility with tannins. Feminine wash was prepared using simple mixing. Physicochemical characteristics of formulated feminine wash indicate that it is yellowish brown in color, odourless, acidic (pH 4.18), viscosity (1.23 dynes/cm²), density (1.02 g/mL), specific gravity (1.02) and sensitive to the following microorganisms namely: Staphylococcus aureus, Escherichia coli, Serratia marcescens and Candida albicans.

Conclusion  Based on the results above, the isolated tannins of Tamarind extract produce zones of inhibitions to the following microorganisms: Staphylococcus aureus (16 mm), Escherichia coli and Candida albicans (15 mm), and Serratia marcescens (13 mm) thus, has antiseptic property and can be formulated to feminine wash.