



Review Article

A Review on: Polyherbal Hand wash

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ABSTRACT

This review is all about Polyherbal Hand wash. In this article we have given more emphasis on why one should use herbal hand wash and their different methods to prepare polyherbal hand wash. Hands are responsible for transmission of microbes and infections. From the time of Pandemics people get to know the importance of hand hygiene and herbal preparations. We can reduce the risk of transmitting infection by proper hand hygiene. There are a good many synthetic hand wash formulations are available in the market with a few adverse effects like itching, dermatitis, irritation and with increased antibiotic resistance in microorganisms, etc. To overcome these adverse effects and herbs antibiotic activity various efforts has been made to prepare Polyherbal hand wash.

INTRODUCTION


Hand hygiene is crucial for protecting yourself and others from infection transmission. Since ancient time washing hands with soap and water is recommended to get rid of germs. These soap-water combination and synthetic hand wash preparations are able to kill the germs but on repeated use they have the potential to cause itching, dermatitis, irritation along with increased antibiotic resistance in microorganisms¹. By proper hand washing we can prevent the diarrhoea, influenza and common cold too. It is the safe and affordable method to prevent the spread of infectious disease. Research proves that washing

hand with polyherbal hand wash is 25% more effective than washing hand with water alone. From ancient times it is found that plant has an adequate antimicrobial and anti-infective property against several pathogenic microorganisms. Preparation of Hand wash by using herbs is safer, economic and the herbs are easily accessible too. For that reason researchers are giving more importance to develop Hand wash by using poly herbs which is superior, safe, affordable and free from side effects².

From centuries Plant gives various therapeutically important active constituents. Various

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Phytochemicals which are present in plants are responsible for healing and curing human diseases. They are of Plant origin and considered as a secondary metabolite as the plant manufacture them may have less need for them. Phytochemicals are naturally synthesized in all parts of the plant like stem, bark, flower, root etc¹.

Primary Phytochemicals	Secondary Phytochemicals
E.g. Chlorophyll, Proteins and common sugars.	E.g. Terpenoids, Alkaloids, Phenolic compounds.

Mashood Ahmed Shah, et al reported a study in which they Formulate, Evaluate and check Antibacterial Efficiency of Herbal Hand Wash Gel. They had prepared Herbal hand wash gel by using poly herbs like Menthol oil, Cinnamon oil, Lavender oil, Eucalyptus oil and Nutmeg oil along with methyl paraben ,Hydroxy propyl methyl cellulose, Sodium lauryl Sulphate, and glycerin. From their study it is concluded that in their formulation cinnamon oil is active against the microorganisms. The result shows that their polyherbal formulation is safe, effective with no side effect on human tissue. The formulated herbal hand wash gel was tested against Escherichia coli, Staphylococcus aureus and Salmonella by spread plate techniques and the results obtained were compared with commercial antibacterial standards. Also the efficiency was checked by using the hand wash gel on volunteers. Hence this may be the novel way to fight against antibiotic resistant of pathogenic organism³.

Pritam V. Chindarkar, prepared and evaluate an herbal hand wash gel of Hyptis suaveolens Flowering-tops. They evaluated the formulation by different parameters like organoleptic properties, physico-chemical parameters along with the antibacterial test. Hyptis suaveolens is as an aromatic plant belongs to Lamiaceae family. This plant is found in wasteland of North East

India, Andaman and Nicobar Island, Deccan Peninsula. Hyptis suaveolens used as a carminative, sudorific, galactogogue, stimulant, in infection of uterus, antiseptic, antispasmodic, antirheumatic, in headaches and for treatment of cancer. Pritam V. Chindarkar collected flowering-tops, including the stems, leaves and blooms of Hyptis suaveolens from ‘Yeola’ region, Maharashtra, India, in the month of Sep-Nov 2019. The 150g flowering-tops powder of Hyptis suaveolens were extracted using ethanol. They used Soxhlet’s apparatus for hot continuous extraction (6hrs) of plant material.

From the Preliminary antimicrobial activity screening tests it is concluded that Hyptis suaveolens herbal hand wash gel was as effective against pathogenic bacteria⁴.

Niraj Terkar et al was formulate Polyherbal Hand wash Gel containing herbal extract which is used not only for the purpose of cleaning hands but also for the prevention of bacterial growth. Neem, Tulsi, Pudina, Clove Oil, Ritha, SLS, Carbopol, Methyl Paraben, Glycerin, Rose Oil, Turmeric were the constituents. Its composition was prepared according to delicateness of skin so that it cannot cause any type of irritation. Hence, from result they concluded that the Polyherbal Hand wash Gel are much better than plain soaps or existing marketed synthetic hand wash due to their ingredients and effectiveness on our skin of hands and as well as suitable for all type of skin⁵.

Debgopal Ganguly et al, prepared antimicrobial Polyherbal Handwash by using different types of herbal plants like Azadirachta indica, Ocimum tenuiflorum, Mentha arvensis, Syzygium aromaticum, Foeniculum vulgare, Coriandrum sativum and Psidium guajava. They were formulate six different formulations of Herbal Hand wash and evaluated for test like appearance, color, odor, pH, viscosity, foam height, and foam retention time. The antimicrobial activity of the six hand wash formulations was tested using the agar

plate method against *Staphylococcus aureus* and *Escherichia coli*. From their study it was concluded that all different formulations of herbal hand wash had significant antibacterial action, according to the zone of inhibition results. In the culture plates, the activity of polyherbal hand wash formulation revealed significant inhibition of bacterial growth. The formulation was non-irritant on skin. The author from their study concluded that these plant ingredients can be used to make herbal hand wash on a commercial basis².

From the study of Dr. Meena Singh and Dr. Sant Kumar Singh on Formulation and Antimicrobial Analysis of Polyherbal Wash, they suggest that the various extracts of *Azadirachta indica*, *Cinnamomum zeylanicum*, *Ocimum sanctum*, *Camellia sinensis*, *Curcuma longa*, *Sapindus mukrossi*, *Aloe-vera* and their combinations are capable of giving superior inhibition without SDS. They formulated herbal hand wash and performed phytochemical tests of taken plants leaves and their antimicrobial assay. The antimicrobial results clearly proved that the herbal hand wash shows very good antimicrobial with SDS too. Thus, these compounds can be found to come back antibiotic resistant of pathogenic organism and provide safe and healthy living through germ free hand all though the removal is not 100% but a number can be reduced¹.

CONCLUSION

To avoid the spread of numerous contagious diseases hand wash plays a very vital role. Hand wash protect the skin from harmful microorganisms. Nowadays it is observed that herbal remedies are more acceptable, cheaper and safe as compare to synthetic formulations. Various attempts were made to prepare polyherbal formulations and evaluated. From their studies it's concluded that both herbal and polyherbal formulations are prove to be effective, affordable and safe.

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