2. INTRODUCTION

Skin problems are very common among the populations in many rising countries. Currently many common fungal skin diseases are influenced by the insalubrious and poor hygienic conditions. Environmental components like high temperature and humidity also play a substantial role to transmission under tropical and subtropical conditions like India. Almost all the Indian population belonging to social economically low status and they did not worriment about the seriousness of the skin problems like fungal skin infections. It is consider that after the consulting of health care specialists many of the people do not take proper medication of related health problems. This ignorance of medication about health increases to more critical complication especially in skin disease conditions. Mycids, Athlete’s foot are the most common fungal infection in the general population (Kovacs 1995), Tinea capitis, Tinea unguium, Tinea corporis, Pityriasis versicolor, Mycetoma and Candidiasis are the common skin fungal infections. Among these, ringworm infection, a superficial fungal infection, is most prevalent. Commonly, these infections are named after the affected body parts.

This is investigated and proved that superficial fungal infections can be spread easily though direct contact with infected people, brushes, toys, pets, animals, clothing and other objects. The fungi tend to grow in mostly moist parts of the body where the skin comes together such as toes, under breasts, between fingers, and in the genital area. Overweight people also have more places where skin comes together because of the fat increase so these types of people have more at risk of developing fungal skin infections.

Fungal infections in skin are in different forms and show up in specific parts of the body, some example are here:

- Foot fungal skin infections (tinea pedis, also known as athlete’s foot)
- Groin and buttocks fungal infection (tinea cruris)
- Beard area fungal skin infection (tinea barbae)
- Scalp fungal skin infections (tinea capitis, also called ringworm)
- Hand fungal skin infection (tinea manuum)
- Skin discoloration fungal infections (tinea veresicolor)
- Nail fungal skin infection (tinea unguium)
- Skin fungal infections (tinea corporis) for skin other than bearded areas, scalp, groin, hands or feet (Noble, 1998).
- Moist parts of the body (such as the penis, vagina, corners of the mouth, nails, skin folds, anus, mouth) fungal infections.

Synthetic antidermatophytics are widely used to treat skin infections in the several countries. These cultured antidermatophytics are mostly non biodegradable petro-products and non-renewable that also causes harmful effects and residual toxicity (Roxburgh and Borrie, 1973). Thus, screening for new treatments of fungal infection with higher efficacy and cheaper substitutes are desirable. Plant resources as well as essential oils are the natural choices of whole world at present time. Naturally occurring antidermatophytes i.e. produced by specific essential oil extracted from the aromatic plants are mostly biodegradable (Beye, 1978) and devoid of side effects.

Almost all the countries have great untapped resources of essential oils. The concentrated essences of various flowers, fruits, herbs, and plant have been used for countries all over the world but in modern time we have forgotten the power of the ancient medicines of the earth, preferring instead to use the products of medicine and chemical companies which imitate the natural medicinal and cleansing properties of essential oils. Many people
suppose their value is essentially one of charm and fragrance but this is mistake, modern scientific research has proven that essential oils are potent which remarkable medicinal properties. The essential oils which extracted from the aromatic plants are effective source of therapeutic agents without unwanted side effects are also strong fungicides (Pandey et al., 1996; Shahi et al., 1996; Shahi et al., 1999; Shahi et al., 2000; Inouye et al., 2006). Rhizomes and essential oils have great importance in the prevention of fungal side effects (Jain et al., 2007). In the other recent investigation the main essential oil from the leaves of Curcuma longa L. and other essential oil from different aromatic plants was found effective against human pathogenic fungi, Epidermophyton floccosum (Hartz) Langeron and Milochevitch, Microsporum gypseum (Bodin) Guiart and Grigorakis, Microsporum nanum Fuentes, Trichophyton mentagrophyte (Robin) Blanchard, Trichophyton rubrum (Castellani) Sabouraud and Trichophyton violaceum Bodin causing tenia corporis.

The chemical composition of essential oils is mostly variable among different plants of same species and even between different parts of the plants. In addition, the composition of essential oil may also differ according to the collection areas, as their chemical components play a major role in the plant adjustment to the ecology and the environment of that area, including biotic and abiotic factors (Sarac N et al., 2009 and Ortega-Nieblas et al., 2011). Use of antibiotics in overabundance is the main issue of spreading resistant bacteria throughout the world (Nostro et al., 2004). Scientific literature revealed the antifungal, antioxidant and antimicrobial potentials of several specific essential oils (Ladeira et al., 2009 and Tyagi et al., 2010). In addition, the antiviral potential of essential oils has been well documented (Cermelli et al., 2008 and Schnitzler et al., 2001).
Most of the essential oils of aromatic plants are the mixtures of 20–60 chemical components with concentrations. Some compounds at fairly high concentrations i.e. 20–70% and others in trace amounts. The components at high concentrations like terpenes and terpenoids play a major role in the antimicrobial and biological effect of EOs (Bakkali et al., 2008).

In the proposed study, the effect of various essentials oils of the aromatic cum medicinal plants against different fungal Skin Diseases will be investigated on the human skin. For this following objectives have been decided:

- To select the specific aromatic cum medicinal plants.
- To extract the essential oils from specific aromatic plants.
- To screen essential oils against selected skin infections.
- To study the activity of essential oils and their components against selected fungal skin infections.
- To standardize the dose of essential oils/ aroma chemicals against cell line of selected fungus.