

EDITORIAL**COSMETICS – QUALITY AND SAFETY CONCERNS**

The term cosmetic is used to refer to a range of beauty products which include skin-care creams, shampoo, lotions, powders, perfumes, facial make up, lipsticks, finger nail and toe nail polishes, hair colours, etc. A subset of cosmetics called make-up refer primarily to coloured products intended to alter users' appearance. Generally cosmetics enhance the appearance and odour of the part of the body where applied without permanently affecting the body structure or function. They are mostly applied on keratinous tissue (skin, hair and nails). In normal usage the term 'cosmetic change' denotes a negative connotation which suggests fraudulence or deception. This notwithstanding the use of these products can be traced to the dawn of recorded history.

The history of cosmetics making is interesting reading. Henna, the dried leaves of *Lawsonia* species has been used as a dye for hair and nails in Egypt, Middle East and India for centuries. Belladonna was used by Egyptian women to dilate the eye pupils and make them beautiful. The Romans, Greeks, Chinese, Arabs and Indians used cosmetics extensively. In 1800s makeup was used primarily by prostitutes. Queen Victoria publicly declared makeup improper, vulgar and acceptable only for use by actors. Much later, Adolf Hitler told women that face painting was for clowns and not decent women. Despite these attempts to discourage use of cosmetics, the practice flourished in all cultures and religions. Today it is estimated that the annual expenditure on cosmetics is approximately \$ 19 billion.

The cosmetic industry is dominated by a few multinational companies who often use unethical tactics to promote their products especially in developing countries. The companies have powerful lobby groups which resist any form of regulations by national government agencies. In nearly all countries no approval or review of the cosmetic products or raw material used in their manufacture is needed. In America, the Food and Drug Administration (FDA) only regulates the colour that can be used in the cosmetics and hair dyes. Admittedly, many reputable multinational companies maintain high internal quality standards and often have recall systems on their products. The fact that they do not have to adhere to strict and mandatory quality assurance standards creates room for small under funded companies to market cosmetics with toxic ingredients as no safety standards exist. A case in point is the use of mercurial compounds in skin lightening creams which was common until 1970s. The creams were only withdrawn following concerted pressure from consumer organizations after it was shown that a significant amount of mercury was absorbed through the skin leading to kidney damage. Even hydroquinone, currently used in skin lightening creams is not considered safe. Parabens used as preservatives in many lotions have been shown to cause skin irritation and contact dermatitis in many people. Lead acetate used to disguise grey hair also raised safety concerns. Indeed many more examples can be cited.

In this issue of the journal there is an article by Mwambete and Simon which describe microbiological quality and preservative capacity of commonly available cosmetics in Dar es Saalam, Tanzania. Although the information on the type of cosmetics sampled is scanty, considering the non-specific definition of these products given hereabove, it does serve to illustrate some of the safety concerns arising from the lack of official regulations.

Of the ten samples examined four had no manufacturing or expiry date and no batch /lot numbers. The manufacturing companies could therefore not identify these 'junk' products in case there was need to withdraw them from the market. The issue of microbial contamination only serves to confirm the substandard nature of these products but it is not a critical factor. Cosmetics are not required to be sterile but microbial load should be within acceptable limits. However, considering that the skin, hair and nails constitute a 'jungle' of microbes it makes little difference whether the microbial count is high or low unless there are lesions on the skin. Furthermore, most cosmetics do not present favourable media for growth of microorganisms.

It is also significant to note that active ingredients used in cosmetics often have antimicrobial activity. For example, lawsone, the active constituent of henna has antifungal activity. A review of literature shows that inappropriate dispensing closures, rather than raw materials, is the main source of microbial contamination in cosmetics.

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