



IJPPR

INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals

ISSN 2349-7203



Human Journals

Notes

April 2021 Vol.:21, Issue:1

© All rights are reserved by Gouri Kumar Dash et al.

Nephelium lappaceum Seed Fat as An Excipient in Topical Cosmetic Formulations



IJPPR
INTERNATIONAL JOURNAL OF PHARMACY & PHARMACEUTICAL RESEARCH
An official Publication of Human Journals



ISSN 2349-7203

Gouri Kumar Dash*, Manoj Kumar Pani

*Indira Gandhi Institute of Pharmaceutical Sciences,
Bhubaneswar – 751015 India.*

Submitted: 22 March 2021
Accepted: 28 March 2021
Published: 30 April 2021



www.ijppr.humanjournals.com

Keywords: *Nephelium lappaceum*, Seed Fat, An Excipient, Topical Cosmetic Formulations

ABSTRACT

Excipients are inert materials used in pharmaceutical and cosmetic preparations and are intended to provide physical, chemical, and biopharmaceutical properties to the formulations [1]. Topical cosmetic preparations are skin products that primarily contain oils, waxes, and/or emollients that are applied to the skin for effective protection. Many times, topical cosmetic preparations contain synthetic ingredients as excipients which are believed to cause unwanted effects on the skin after their prolonged application. We further concluded that the seed fat can serve as an ingredient in the preparation of natural lipsticks. Our research is ongoing to study the compatibility of seed fat in other cosmetic formulations. Appreciable research in this direction may open a new door to use natural products in cosmetic formulations.

Excipients are inert materials used in pharmaceutical and cosmetic preparations and are intended to provide physical, chemical, and biopharmaceutical properties to the formulations [1]. Topical cosmetic preparations are skin products that primarily contain oils, waxes, and/or emollients that are applied to the skin for effective protection. Many times, topical cosmetic preparations contain synthetic ingredients as excipients which are believed to cause unwanted effects on the skin after their prolonged application. This typically refers to preparations such as lipsticks, creams, and lotions that are applied to the skin by women several times a day and continue for the whole life where there is a chance of potential threat to their health in long run. Therefore, researchers are now looking towards natural resources to be used as excipients in formulation bases as they are non-toxic, cost-effective, freely available, and biocompatible to the skin [2]. Thus, search for new cosmetic excipients is as important as the search for new drug candidates.

Nephelium lappaceum L. (Family- Sapindaceae) is an evergreen tree, popularly native to Malaysia but grown in other parts of the South Asian countries. The plant is commonly grown in South Asian countries for its fruits which are believed to be the potential source of minerals and other nutrients. The fruits are either consumed fresh, canned, or processed, and appreciated for their delicious taste and flavour. The fruits are deseeded during processing in the canning industry and considered as a waste by-product. An extensive literature survey revealed that the seeds contain a good amount of fatty material and have been claimed to be a source of natural edible fat [3,4]. Lourith et al. [5] confirmed the presence of oleic and arachidic acids as the major fatty acids together with their composition and stated that the seed fat can be a promising unconventional source of specialty fat for cosmetics. Physicochemical analysis of *N. lappaceum* seed fat and its application in topical formulations has been reported by our team [6]. Further, our earlier studies demonstrated that the lipsticks prepared from seed fat were good enough to meet the general characteristics for ideal lipsticks with sufficient hardness and appreciable luster to the formulation [7]. We further concluded that the seed fat can serve as an ingredient in the preparation of natural lipsticks. Our research is ongoing to study the compatibility of seed fat in other cosmetic formulations. Appreciable research in this direction may open a new door to use natural products in cosmetic formulations.

CONFLICTS OF INTEREST: Nil

REFERENCES

1. Boonen J, Veryser L, Taevernier L, Roche N, Peremans K, Burvenich C, De Spiegeleer B. Risk evaluation of impurities in topical excipients: The acetol case. *J Pharm Analysis*. 2014; 4(5): 303-315.
2. Jain A, Radiya P, Wadekar R, Limaye S, Pawar C. Natural excipients-An alternative to synthetic excipients: A comprehensive review. *Int J Pharm Med Res*. 2014; 2(4): 123-127.
3. Issara U, Zzaman W, Yang TA. Rambutan seed fat as a potential source of cocoa butter substitute in confectionary product. *Int Food Res J*. 2014; 21(1): 25-31.
4. Sukmandari, N. S., Dash, G. K., Jusof, W. H. W. & Hanafi, M. A review on *Nephellium lappaceum* L. *Res J Pharm and Tech*. 2017; 10(8): 2819-2827.
5. Lourith N, Kanlayavattanakul M, Mongkonpaibool K, Butsaratrakool T, Chinmuang T. Rambutan seed as a new promising unconventional source of specialty fat for cosmetics. *Ind Crops Prod*. 2016; 83: 149-154.
6. Dash GK, Habil NN. Physicochemical analysis of *Nephellium lappaceum* seed fat and its application in Topical formulations. *J Global Pharm Tech*. 2019; 11(3): 7-11.
7. Dash GK, Majeed S, Mohd. Zubir NQ. Formulation and evaluation of lipsticks containing *Nephellium lappaceum* seed fat and other natural ingredients. *Asian J Pharm Clin Res*. 2018; 11(10): 474-476.

