International Journal of Pharmaceutical Research and Applications
Volume 10, Issue 2 Mar–Apr 2025, pp: 2317-2320www.ijprajournal.com ISSN: 2456-4494

Formulationand Evaluation of Herballip Balm by Using Punica Granatum

Mugdha Sharma*, Yadav ShrutikumariJitendrasingh, Vashi RichakumariAjitsingh, Parekh Dhruv Bhavinkumar
*Assistant Professor, Shree Dhanvantary Pharmacy College, Kim (Gujrat)

Date of Submission: 20-04-2025 Date of Acceptance: 30-04-2025

ABSTRACT
Acompleteherbalapproachinskincareiswidelyapp reciatedwhileformulatingacosmetic product due totheir less side effects. We aimto developand evaluatea lip care product which has nourishingand healing propertiesto cure dry and chapped lips. We haveused natural ingredients like coconut oil, castor oil,jojoba oil, glycerin, bees wax and vitamin E along with pomegranate juice to formulate the product. Along with healing and nourishing the product also may show antimicrobial and anti-oxidant properties.

Keywords:-
herbalformulation,lipbalm,naturalproduct.

I. INTRODUCTION

Cosmetic productshave beenused sinceagesto enhance appearanceand skin care.Theirhave been variouschangesinthetypesofproductsusedaccordi ngtotherequirementsand environmental changes. With increasing factor like pollutionand severe climate changes there is constant increase in problems faced as effect of chemical use.

Tosolvethis issue, herbalapproachis consideredthe best option for skin care. Herbal cosmetic are class ofthe cosmeticthat uses natural and plant based ingredients. Natural ingredientsareusedbecausetheygivedesiredeffecto nthetargetorganwithout showing toxicity. They provide prolong effects as compare to chemically made products. These productsare easy to use and convenient for all age groupsand gender.

Lipbalmiscrucialpartofeverydayskin careregimenwhichnourishesandhydratesthelips. Ithelp to enhance the appearance by preventing dryand chapped lips. Somelip balms also haveadditional properties like SPF, anti inflammatory, anti microbial, anti oxidant, color imparting property.

Pomegranate juice isa natural source of hydration and nourishing whenusedin skincare.It containshighlevelsofpoly phenols which act asnaturalantioxidantsthat helps in reducing hyper pigmentationandaging hencemaintains youthfulappearance.Ithasfounditsplacein skin care regimenand isused abundantlyin formulation of cosmetic products. It contains ellagicacid whichfights free radicalsand protect skin from environmental stress. It isalso knownto promote cell growthandregenerationthat helpsto improve skin texture.Itisalso known for its soothing and anti-inflammatory propertiesto soothe redness along with controlling acne breakoutsand sebum production. It stimulates collagen production that increasesskinelasticity.Main contentsofpomegranatejuiceincludeswater,sugars (glucose,fructose,sucrose),organicacids(citric acid,ascorbic acid,malicacid),polyphenols,flavoids, anthrocyanins, ellagic acid, punicagalin (uniquetannin found in pomegranate with high antioxidant property), minerals(copper, potassium, magnesium) and various amino acids.

Weaimtoformulateacompletelyherballip balmusingpomegranateasactiveingredientand excipients like coconut oil, castor oil,jojoba oil, glycerin, bees waxand vitamin E.The lip balmformulated

International Journal of Pharmaceutical Research and Applications
Volume 10, Issue 2 Mar–Apr 2025, pp: 2317-2320www.ijprajournal.com ISSN: 2456-4494

withnatural,organicandqualifiedingredientswhich providesnourishment, hydrationand soothing effect. The lip balm isalsoaesthetically pleasing as it impart gloss and shine making the skin look vibrant and healthy.

II. MATERIALANDMETHODS

Materialsusedincluded:-

- Pomegranatejuice squeezedfreshlyfrompomegranatefruitobtainedfromlocal market
- BeeswaxobtainedfromGreenleafgroup
- Castor oilfromlocalstore
- JojobaoilobtainedfromGreenleafgroup
- CoconutoilobtainedfromGreenleafgroup
- Glycerinfromlocalpharmacy
- VitaminEfromlocalpharmacy

METHORDOFPREPARATION

- Requiredmeasurementsoftheingredientsisgiveninthetablebelow
- Freshpomegranatewastaken,washed,peeledandseedsweretakenout.
- Theseedswerecrushedandthemixturewaspassesthroughthefilterpaperandjuice was obtained.
- Oilsweremeasuredinaccuratequantityusinga measuringcylinder.
- Requiredamountofbee'swaxwasweighed.
- Oilswereheatedinaheatingmantletilltheyreach60^{o}C.
- Pomegranatejuicewasaddedatthisstageandtogetherwasboiledforfewminutestill bubbles start to appear.
- Aftercoolingit forfewmoments,mixtureofglycerineandvitaminEwasaddedand stirred continuously.
- Itwasthentransferredintoaglassbottleandkeptatcooltemperaturesfor2hours.

Sr no	Ingredients	Measurements
1	Pomegranatejuice	4ml
2	Coconutoil	1.3ml
3	Jojobaoil	2.3ml
4	Castoroil	1.3ml
5	Beeswax	0.6gm
6	glycerin	2drops
7	VitaminE	1capsule

Table1final formulation

METHORDSOFEVALUATION

- **VISCOSITYANDSPREADABILITY**

Asmall dropoflipbalmsample wastakenand putona slide. Anointment spreader rod was used to spread it on the slide and uniformity of the lip balm was observed.

- **ORGANOLEPTICPROPERTIES**

The organoleptic characters of the formulation were studied by physical observations. To checkthetexture, smallamount ofproduct wastakenbetweenindexfingerandthumband rubbed.

- **PRODUCTPH**

ThePHwascheckedusingphpaper.

- **ANTIMICROBIALPROPERTIES**

Asmall amount ofproduct wastakeninapetriplate.Snall bitsofchromatography paperwas dipped in the product and kept in solid agar media. They were kept under observation for 5 days.

- **SKINIRRITATION**

Asmall amount ofproduct wastakenandapplied on innerwristsofvolunteersandleft for fewhours.

III. RESULT

Sr no	**Properties**	**Observations**
1	Colour	Pink
2	Odour	Nuttycoconut
3	Texture	smooth
4	pH	5-6
5	Spreadibility	Uniform
6	Microbial growth	Not observed
7	Skin irritation	Not observed
8	Shelf life	Under observation

Table2

International Journal of Pharmaceutical Research and Applications
Volume 10, Issue 2 Mar–Apr 2025, pp: 2317-2320www.ijprajournal.com ISSN: 2456-4494

Finalformulation

IV. CONCLUSION

The lip balm formulated from pomegranate juice was evaluated according to general criteria to assure proper formulation and quality. The lip balm formulated was a complete natural and herbal approach to design a cosmetic product. Due touse of pomegranate use it was rich in antioxidants and have excellenthydratingandnourishingproperties. Itisachemical freeapproachfor lip care with excellent benefits and very less side effects.

REFERENCE

[1]. KaseMG,PrasetyaningsihA,AditiyariniD .Antioxidantandantibacterialactivityof pomegranate extract (Punica granatum L.) inlip balm formulation. Biology,Medicine,&NaturalProductChem istry.2023Jan11;12(1):109-17.

[2]. Pertiwi,R.D.,&Pangestu,M.(2020).Form ulasidanEvaluasiSediaanBalsamBibirMe nggunakanEkstrak Bunga Kembang Sepatu (Hibiscus rose sinesis L) sebagaiPewarna Alami. Archives Pharmacia, 2(2), 92–101.

[3]. PatelP,PalR,ButaniK,SinghS,PrajapatiB G.Nanomedicine-fortifiedcosmeceutical serums for the mitigation of psoriasisand acne. Nanomedicine. 2023 Oct1;18(24):1769-93.

[4]. ChittasuphoC,ChaobankrangK,Sarawun gkadAetal.Antioxidant,anti-inflammatory and attenuating intracellular reactive oxygen species activities of nicotiana tabacumvar.Virginialeafextractphytoso mesandshapememorygelformulation.Gel s9(2), 78 (2023).

[5]. NayakJK.Relationshipamongsmartphon eusage,addiction,academicperformance and the moderating role of gender: A study of higher education studentsinIndia. Computers & Education. 2018 Aug 1;123:164-73.

[6]. NayakT,SahooCK,MohantyPK.Workpla ceempowerment,qualityofworklifeand employee commitment: a study onIndian healthcare sector. Journal of AsiaBusinessStudies.2018May8;12(2):11 7-36.

[7]. KoreMP,PanditMP,ChikkodiMP,Patrak arRG,PatilAA.FormulationandEvaluatio n of Natural Lip Balm by using Rose Petals.

[8]. Goyal,Anju,AdityaSharma,JasanpreetKa ur,SapnaKumari,MadhukarGarg,Rakesh K.Sindhu,MdHabiburRahmanetal.“Bioa ctive-basedcosmeceuticals:anupdate on emerging trends.” Molecules 27, no. 3 (2022): 828

[9]. GoyalA,Sharma A,KaurJ,KumariS,GargM,SindhuRK,Ra hmanMH,AkhtarMF, Tagde P, Najda A, Banach-Albińska B. Bioactive-based cosmeceuticals: An update on emerging trends. Molecules. 2022 Jan 27;27(3):828.

[10]. Bedi,M.K.;Shenefelt,P.D.Herbaltherapyi ndermatology.Arch. Dermatol. 2002, 138, 232–242

[11]. SwarbrickJ.EncyclopediaofPharmaceuti calTechnology:Volume6.CRCpress;201 3 Jul 1.

[12]. SwarbrickJ.EncyclopediaofPharmaceutica lTechnology,pdf[Internet].2002

[13]. PorterD,RamponiD,BayhiLC,FowlerL, NunnM,CindyCobbDN.ProgramAgenda .

[14]. RavinDS,VargheseSA.Acasereportofexf oliativedermatitistreatedholisticallyby renewed and highly diluted simillimum. NEW HEIGHT.:23.

[15]. GuptaS,HayekSS,WangW,ChanL,Mathe wsKS,MelamedML,BrennerSK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J. Factorsassociated with deathin critically ill patients with coronavirus disease 2019 in the US. JAMA internal medicine. 2020 Nov 1;180(11):1436-47.

[16]. YangX,YuY, XuJ,etal.Clinical courseandoutcomesofcriticallyillpatients with SARS-CoV-2 pneumonia in Wuhan, China: a single-centered, retrospective, observational study.

International Journal of Pharmaceutical Research and Applications
Volume 10, Issue 2 Mar–Apr 2025, pp: 2317-2320www.ijprajournal.com ISSN: 2456-4494

Lancet Respir Med. 2020;8(5):475-481.
[17]. PazyarN,YaghoobiR,Rafiee E, Mehrabian A, Feily A. Skin wound healingand phytomedicine:areview.Skinpharmacologyandphysiology.2014Jun27;27(6):303-10.
[18]. oraiAA:Woundcarewithtraditional,complementaryandalternativemedicine. Indian J Plast Surg 2012;45:418-424.
[19]. Purnamawati S,IndrastutiN, DanartiR,SaefudinT.Therole of moisturizersin addressingvariouskindsofdermatitis:areview.Clinicalmedicine&research.2017 Dec 1;15(3-4):75-87.
[20]. .P.J.Matts,B.Fink,K.Grammer,andM.Burquest,"Colorhomogeneityandvisual perception ofage, health,and 488 attractiveness of female facial skin," J. Am. Acad.Dermatol.57,977–984(2007).
[21]. ClarysP,Barel AO.27NewTrendsinAntiagingCosmeticIngredientsandTreatments: An Overview. skin. 2009 Mar 3;1:4.
[22]. LemperM,BarelAO,PayeM,MaibachHI. BabyCareProducts.In:AndréO.Barel, Marc Paye and Howard I. Maibach (Eds). Handbook of Cosmetic Science and Technology.
[23]. Purnamawati S, Indrastuti N, Danarti R, Saefudin T. Therole of moisturizersin addressingvariouskindsofdermatitis:areview.Clinicalmedicine&research.2017 Dec 1;15(3-4):75-87.
[24]. 35.M.Sawayama,E.H. Adelson,andS.Nishida,"Visualwetness perceptionbased on image color statistics," J Vision 17, 7 (2017)
[25]. AhamadS,AzminM,HudaSN,NorM, AbdullahPS,Ch'NgHY.Evaluationofdrying and extraction parameters for the extraction yield of watermelon(Citrulluslanatus (Thunb.)) rind using statistical design experiment. Food Research. 2024.
[26]. Ahamad,S.,MohammadAzmin,S.N.H., MatNor,M.S.,Zamzuri,N.D.D.andBabar, M. (2022). Recent trends in preprocessing and extraction of watermelon rind extract:Acomprehensivereview.JournalofFoodProcessingandPreservation, 46(7), e16711.
[27]. JurenkaJ.Therapeuticapplicationsofpomegranate(PunicagranatumL.):areview. Alternative medicine review. 2008 Jun 1;13(2).
[28]. Jurenka JS. Anti-inflammatoryproperties of curcumin,a major constituent of Curcumalonga:areviewofpreclinicalandclinicalresearch.Alternativemedicine review. 2009 Jun 1;14(2).
[29]. SchmitzJL,DetrickB,O'GormanMR,editors.ManualofMolecularandClinical Laboratory Immunology: 2 Volume Set. John Wiley & Sons; 2024 Dec 24.
[30]. TrenholmS.Thinkingthroughcommunication:Anintroductiontothestudyof human communication. Routledge; 2020 Aug 23.
[31]. Kurek-GóreckaA,GóreckiM,Rzepecka-StojkoA,BalwierzR,StojkoJ.Beeproducts in dermatology and skin care. Molecules. 2020 Jan 28;25(3):556.
[32]. Kurek-GóreckaA,Komosinska-VassevK,Rzepecka-StojkoA,OlczykP.Beevenomin wound healing. Molecules. 2020 Dec 31;26(1):148.
[33]. NongY,MalohJ,NatarelliN,GuntHB,TristaniE,SivamaniRK. Areviewoftheuseof beeswax in skincare. Journal of Cosmetic Dermatology. 2023 Aug;22(8):2166-73.
[34]. HosseiniSF,MousaviZ,McClementsDJ. Beeswax:Areviewontherecentprogressin the development of superhydrophobic films/coatings andtheir applicationsin fruits preservation. Food chemistry. 2023 Oct 30;424:136404.
[35]. EhsanE,Truong-BalderasK,ItuarteBE,ClarkK,WeiEX.Skinofcolorrepresentation in cosmetic dermatology literature, 2018–2023. Archives of DermatologicalResearch.2025Feb22;317(1):458.
[36]. VatiwutipongP,VachmanusS,NorasetT, TuarobS.Artificialintelligenceincosmetic dermatology: a systematic literature review. IEEE Access. 2023 Jul 13;11:71407-25