



"FORMULATION AND EVALUATION OF ANTI-PSORIATIC HERBAL LEP BY USING CASSIA TORA LEAVES"

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INTRODUCTION

2.3% of the world's population suffers from psoriasis, a genetically based chronic inflammatory skin condition characterised by red, scaly, and elevated areas. Psoriasis is a skin condition that develops when the immune system sends out incorrect signals, which causes the skin cell cycle to accelerate. According to histology, psoriasis is characterised by a notable hyper-proliferation of keratinocytes, a significant inflammatory infiltration of T lymphocytes and neutrophils, and vascular expansion and growth. Epidermal cell proliferation abnormalities were thought to be the main abnormality in psoriasis sufferers. Angiogenesis with vasodilation, aberrant keratinocyte differentiation, and excessive Th-1 and Th-17 inflammation can all be seen in psoriasis. It has been proposed that an antioxidant therapy could be a component of a more targeted and successful therapy for the management of this skin condition because psoriatic skin is also characterised by an advanced state of lipid peroxidation. As a result, an antioxidant therapy has been suggested. According to recent studies polyphenolic chemicals, which are present in the majority of plants, may have a protective impact against a variety of chronic diseases. Natural polyphenols are multifunctional compounds that have been shown to be powerful antioxidants and can also act as anti-inflammatory and antiproliferative agents by modulating a variety of signalling pathways. For the treatment of multi-cause disorders like psoriasis, this trait may be useful. This quality may be helpful in the management of multi-cause disorders like psoriasis. According to polyphenols are a common component of plants and have a wide range of biological properties, including immune system functions, the ability to scavenge oxygen radicals, antibacterial, anti-inflammatory, and anticancer properties. Therefore, we attempted to research any potential benefits of isolated flavonoids and the leaves of Cassia tora on a UV-B induced photodermatitis model of psoriasis. C. tora is a wild plant that spreads like a weed throughout most of India and has historically been used to cure psoriasis and other

skin conditions. The current investigation sought to determine if standardised ethanol extract (70% v/v ethanol) and extracted flavonoids have anti-psoriatic properties.(2)

Traditional Unani medicine *Cassia tora*, sometimes referred to as Panwar, is used. It is also referred to by a variety of other names, including Sanjsaboya, Qalb, Sang Saboya, Panwar (Urdu), and Penwaad Taarutaa (Unani). Ringworm Plant, Sickle Senna, Foetid cassia (English), Chakunda, Pamad, Chakavat, Panewar (Hindi), Chakramarda, Dadrughna, Praputrata, Kharjugna, Dadamar (Sanskrit).

The entire plant has a foul odour. This plant's seeds, roots, and leaves have all been found to be extremely useful. The leaves and seeds are an excellent treatment for skin conditions, particularly ringworm and itching. It was discovered that the seed-extracted chrysophanic acid-9-anthrone is effective against ringworm fungi. Because *Cassia tora* seeds are blood purifiers, they are used both orally and externally to treat skin conditions such as leprosy, ringworm, pityriasis, vitiligo, and melasma. The seeds are recognised in the Japanese Pharmacopoea and are effective against ringworm and other skin conditions as a tonic and stomachic. Additionally, seeds are helpful for earaches, liver issues, and eye disorders. The filtrate made from cooked seed powder is used to treat skin inflammation and is thought to be a blood purifier. The guinea pig's uterus clearly contracted when exposed to seed extracts. The seeds are used both topically and orally in China to treat a variety of eye conditions. The mature leaves have purgative properties. The leaf extract had antifungal properties that prevented the ringworm fungus from growing, *Nanum Microsporon*. Children experiencing feverish bouts while teething are given a leaf decoction. Because the leaves of *Cassia tora* mimic those of senna, the real herb is occasionally contaminated with its leaves. According to reports, the roots have astringent, anthelmintic, purgative, and bitter characteristics.(3)

KEYWORDS:

Cassia tora antipsoriatic UV-B induced photodermatitis model flavonoids.

ABSTRACT

Tradition has it that the Fabaceae herb *Cassia tora* L. can be used to cure psoriasis and other skin conditions. Three flavonoids—luteolin-7-O-glucopyranoside (1), quercetin-3-O-D-glucuronide (2), and formononetin-7-O-D-glucoside (3) isolated from the ethanol extract of *C. tora* leaves were examined for their antipsoriatic activity using a UV-B-induced photodermatitis model in order to evaluate this information. By comparing their retention times with those of established standards like luteolin, quercetin, and formononetin, the flavonoids found in the ethanol extract were also identified using HPLC. In the UV-induced photodermatitis model, histological examination of the section showed that the ethanol extract (400 mg/kg), isolated compound and standard group did not exhibit Munro's microabscess, elongated rete ridges, or dilated capillary loops. The isolated ethanolic extract Compared to a positive control, isolated compounds 1, 2, and 3 significantly reduced the relative thickness of the epidermis. In the HPLC analysis, three flavonoids—luteolin, quercetin, and formononetin—were identified by contrasting the retention durations of standard

markers. Using an animal model, we came to the conclusion that the flavonoids in Cassia tora leaves exhibit potent antipsoriatic properties.(1)

Synonym of cassia tora:-

-Mesha Kusuma

-Edagaja

-Prapunnada

-Padmaja

-Vimardaka

-Sokanaasana

-Mardakra

-Kharjughana

Regional names of cassia tora:-

Language	Name
English	Ringworm plant
Hindi	Chakwad, parwad
Marathi	Nakla
Gujarati	Kubariya
Tamil	Tagari
Telugu	Tangarise
Bengali	Chakunda

Ayurvedic properties of cassia tora:-

Rasa [taste]-; Madhura [sweet]

Guna [virtue]-; laghu [light]

Virya [potency]-; sheet [cold potency]

Vipaksha [post digestion]-; Madhura [sweet]

Karma [action]-; kapha- Vaata shamaka (4)

HISTORY

An annual foetid herb, cassia tora is herbaceous. The plant can reach a height of 30–90 cm (12–35 in) and has alternate pinnate leaves, the majority of which have three opposing pairs of obovate leaflets with rounded tips. The length of the leaves can reach 3-4.5 centimetres. When young, the stems feature distinctively scented foliage. The five-petalled, pale yellow blooms grow in pairs in the axils of the leaves. The stamens have varying lengths. The pods are 10-15 cm long, slightly flattened or four-angled, and sickle-shaped, therefore the common name sickle pod. A pod contains 30 to 50 seeds. cassia tora is regarded as an annual weed that is exceptionally resilient to stress and is simple to grow. It grows as a wasteland rainy season weed in India, and its typical flowering season is from October to February, following the monsoon season. From sea level to 1800 metres above sea level, cassia tora grows on dry soil. Up to twenty years are allowed for the seed to remain healthy. Following rain, up to 1000 plants can emerge per square metre. The mature seed is collected and let to dry in the sun. It typically dies out in South Asia between July and October, when the weather is dry.(5)

OCCURANCE

Small annual Cassia tora Linn. In Asian nations, underbrush or herbs are frequently found growing as weeds. It grows as a weed all over India, but is primarily found in its natural state in Himachal Pradesh, Bihar, and Orissa. Contains "Dadhughnavati," an Ayurvedic remedy that is one of the most effective antifungal compositions. The herbs are 1.2 metres tall, with compound, paripinnate leaves that are paired in threes. Bright yellow, axillary flowers that are typically in pairs. Pods are long, slender, and obliquely separable, measuring 15–25 cm. Rhombohedral, green seeds. It is a well-known Ayurvedic medicinal herb that is effective as a laxative, an antiperiodic, and a treatment for leprosy, ringworm, bronchitis, cardiac disorders, ophthalmic, skin, and cough disorders, as well as for haemorrhoids and hepatic disorders. According to reports, CT seeds have antioxidant activity and include a variety of active compounds, such as chrysophenol, emodin, and rhein. This strategy has been linked to numerous therapeutic qualities including antibacterial, antihepatotoxic, and antimutagenic effects.

BOTANICAL DISCRPTION

C. tora is a robust, upright, smooth, semi-woody annual plant that grows one to two metres tall. Leaves are 3 in pairs and between 6.0 and 12.5 cm long. long, membranous, ovate-oblong, with two pairs of subulate glands that move slowly at night; The flowers are bright yellow in colour, typically in pairs, on very short axillary peduncles. The pods are sturdy with a 4-angle shape and measure 15 to 25 cm in length.(6)

LEAVES:

The primary compounds found in the leaves were flavonoids and anthraquinone glycosides. In the anthraquinone glycoside, there are rhein, emodine, Obtusifolin, physion, chrysophanol, chrysoobtusin, chryso-obtusin-2-O--D-glucoside, and obtusifolin-2-O--D-glucoside 3, 4 . Sennosides, which are well known for their therapeutic value, have been found in the plant's leaves. Sennoside content was determined to be 0.145% in the leaves of *C. tora*.It has also been claimed that leaves contain the flavonol glycoside kaempferol-3- diglucoside. Ononitol monohydrate, a possible hepatoprotective component, was found in the leaves of *C. tora*.



Fig 1; - leaves

SEEDS:

The seeds of this plant have yielded a number of anthraquinone and naphthopyrone-related chemicals. There are three crystallised compounds. Tora substance A, B, and C have been isolated from *C. tora* seedlings. According to these chemicals' features and certain common derivatives, tora material C and B may be the same as rubrofusarin, a metabolic by product of the fungus *Fusarium culmorum*, and norrubrofusarin, a by product of rubrofusarin's demethylation. The seeds of *C. tora* produced sitosterol when extracted with petroleum ether, chrysophanol, physion emodin, and rubrofusarin when extracted with chloroform, and two glycosides, rubrofusarin -6- and 8- Hydroxy-3-methyl anthraquinone -1- and -gentiobioside, when extracted

with ethanol. It also contains phenolic glycosides namely rubrofusarine triglucoside, nor-rubrofusarin gentiobioside, demethylflavasperone gentiobioside, torochryson gentiobioside, torachryson tetraglucoside and torachryson apioglucoside. Seed oil contains different percentage of oleic, linoleic, palmitic, stearic and lignoceric acids. The *C. tora* seed is composed of hull (27%), endosperm (32%) and germ (41%). Gum obtained from the seeds of *C. tora* is known as 'Panwar gum'. Chemically it is neutral heteropolysaccharide of galactose and mannose. pH of the Panwar gum mucilage is approximately. Seeds of *C. tora* contain about 23.2% of proteins, rich in all essential amino-acids, particularly, methionine and tryptophan.(7)



Fig 2;-Seeds

PHARMACOLOGICAL ACTIVITY

Anti psoriatic activity:

The plant *Cassia tora* L. traditionally, is claimed to be useful in the treatment of psoriasis and other skin diseases. In order to evaluate this information, antipsoriatic activity of three flavonoids. *tora* leaves were investigated using UV-B induced photodermatitis model. Further, the flavonoids present in the ethanol extract were identified using HPLC by comparing their retention time with known standard luteolin, quercetin and formononetin. In the UV induced photodermatitis model, histopathological analysis of the section revealed the absence of Munro's microabscess, elongation of rete ridges, and capillary loop dilation in ethanol extract isolated compound and standard group. The ethanolic extract and isolated compounds exhibited a significant (0.01) percentage reduction of relative epidermal thickness when compared with a positive control. In the HPLC analysis, three flavonoids were identified by comparison of the retention times of standard marker, namely luteolin, quercetin and formononetin. We concluded, using animal model, that the flavonoids from *Cassia tora* leaves have significant antipsoriatic activity.(8)

Antifungal Activity:

The leaf extract significantly reduced the development of *Aspergillus niger*, *Candida albicans*, and *Sachharomyces.Trichophyton mentagrophyte* and *S. cerevisiae*. Because of chrysophenol, chrysophanic acid-9-anthrone, and other anthraquinones such as emodin, physcion, and rhein, it has antifungal activity.

Various research have indicated that the plant possesses antifungal properties. Chrysophanic acid-9-anthrone has been found as the main antifungal component. In broth culture, the substance has inhibited the development of *Trichophyton rubrum*, *T. mentagrophytes*, *Microsporum canis*, *M. gypseum*, and *Geotrichum candidum* when an antioxidant, L-ascorbic acid, is present at a concentration of 95.5 g/ml. The growth of *C.albicans* was inhibited in one investigation by an ethanolic extract of plant seed, with an inhibition zone of 8.5 mm in diameter at 24 mg/ml and 11.0 mm in diameter at 29 mg/ml. At dosages of 0.15 mg and 0.30 mg, respectively, ethanolic and aqueous extract from C.

Antibacterial activity:

The impact of phenolics glycoside, their aglycones, and a number of other compounds structurally similar to them on *E. coli* K12, *Pseudomonas aeruginosa* PA 01 and a few other strains of *Staphylococcus aureus*. With a minimum inhibitory concentration of 264 g/ml, torochryson, torolactone, aloemodin, rhein, and emodin among them had a considerable antibacterial impact on four strains of methicillin-resistant *Staphylococcus aureus*.

Anti-inflammatory Effects:

Carrageenan, histamine, and serotonin were tested for the anti-inflammatory effects of a methanolic extract of *C. tora* leaves. and rat hind paw oedema caused by dextran. It had considerable anti-inflammatory action against these substances. a rat excision wound model, the ethanolic extract of the leaves demonstrated its impact on wound healing. It was discovered that the extract's ability to constrict wounds was greater than that of the control group and comparable to the industry standard Nitrofurazone ointment. As a result, the ethanolic extract exhibited strong anti-inflammatory properties. Effectively reducing mice's pain response was the plant's methanolic extract from the leaves.

Hypolipidemic activity:

The hypolipidemic efficacy of ethanol extract and its ether and water soluble fractions against triton-induced elevated lipid profile. Total LDL cholesterol was found to be lower in blood and triglyceride levels while HDL cholesterol was shown to be higher by various percentages. Due to their extraordinary rheological behaviour and lipid metabolism, soluble fibres extracted from the seeds demonstrated the hypolipidemic level. The soluble fibres improve faecal lipid excretion and exhibit a strong hypolipidemic impact as a result of a marked decrease in serum total cholesterol and triglyceride levels, respectively.

Purgative activity: It was discovered that the methanolic extract of *C. tora* leaves had a purgative effect. Due to the purgative properties of seeds, which Emodine, aloe-emodine, and anthraquinone glycosides are present.

Antidiabetic activity:

Diabetic prevention In a study by Chaurasia et al., the anti-diabetic screening of methanol extract of seeds of *C. tora* was assessed in normal and alloxan-induced diabetic albino rats utilising single dose and sustained treatment. The anti-diabetic effectiveness was shown to be good in the normal, acute, and chronic treatment groups when methanol extract was administered orally at doses of 50, 100, and 200 mg/kg body weight, particularly at 200 mg/kg body weight. Glibenclamide, a commonly used medication, was used in the study.

Antioxidant activity:

Anti-oxidant function one study indicated that the seed's methanolic and aqueous extract had an anti-oxidant impact on the peroxidation of linoleic acid. The methanolic extract of seeds showed a considerable antioxidant activity when compared to α -tocopherol, although it was less potent than butylated hydroxyanisole. According to UV, HPLC, IR, MS, and NMR analyses, the fraction of methanol extract obtained from the methanol-water eluent solvent shown substantial antioxidant effect and was determined to be caused by 1,3,8-trihydroxy-6-methyl-9,10-anthracene dione. Stronger antioxidant activity can be seen in *C. tora* seed methanolic extract. MECT was discovered to have greater antioxidant properties compared to α -tocopherol activity. Emodin has been shown to be an antioxidant in MECT. Alaternin and norrubrofusarin glucoside, two phenolic active ingredients derived from *C. tora* extract, also shown strong free radical scavenging abilities.

Other parts: Pods are rich in sennosides.

Flowers are : Reported to contain Kaemferol and leucopelargonidine.

The roots : of *C. tora* showed the presence of 1, 3, 5 trihydroxy 6, 7 dimethoxy-2-methyle anthraquinone, leucopelargonidine and β -Sitosterol 27, 28

The Stem :

bark of this plant contains arachidic acid, isostearic

acid, linoleic acid, palmitic acid, marginic acid,

behenic acid,

phenolics like rhein, emodine,

Hexahydroxy flavones and a Hydroxycoumarin

(Aurapterol) 29



FIG. 2 : CASSIA TORA SEEDS AND PODS

Biopotential of *C. tora*:

The plant has been found to exhibit diverse pharmacological activities. Several research workers have reported different biological activities of *C. tora* in various in vitro and in vivo test models. These have been described in detailed in

Following Headings:

Antioxidant Activity:

The methanolic extract of seeds of *C. tora* (MECT) shows stronger antioxidant activity. It was found that MECT exhibits stronger antioxidant activity as compared to Alpha-tocopherol. Emodin was demonstrated as antioxidant component of MECT 30

The phenolic active component, alaternin and norrubrofusarin glucoside isolated from extract of *C. tora* also showed a potent free radical scavenging activity.

Hypolipidemic Activity:

Ethanollic extract and its ether soluble and water soluble fractions were evaluated for their hypolipidemic activity against triton induced hyperlipidemic profile. Decreased serum and triglyceride level of total LDL cholesterol but increased HDL cholesterol level by different percentages was observed. Soluble fibers isolated from the seeds showed the hypolipidemic level due to their phenomenal heological behavior and lipid metabolism. The soluble fibers enhances fecal lipid excretion and showed significant hypolipidemic effect due to marked reduction in serum concentration of total cholesterol and triglyceride level 3

MATERIALS AND METHOD

Cassia tora leaves was preferred it is economical and have an medical importance. The leaves of cassia tora were collected from pune market and also lal chandan, haldi, elachi, are also purchase from local market of pune.



Fig 3. Raw material

EXCIPIENTS AND HERBAL INGREDIENT AS THEIR ROLES:

Sr no.	Ingredients	Role
1	Cassia tora	Anti-psoriatic activity
2	Lal chandan	Skin care and rashes
3	Elaichi	Antiseptic properties
4	Fatakadi	Preservative, antiseptic properties
5	Haldi	Skin disorder, reduce inflammation

Table no 2. Excipients and herbal ingredient as their roles:

EXTRACTION

A soxhlet apparatus with ethanol was used to extract about 750g of the powdered leaves of c. tora over the course 18 hours. In a rotary evaporator operating under reduced pressure the extracted solution was filtered concentrated.

PRELIMINARY PHYTOCHEMICAL SCREENING:-

Sr no.	Constituent	Ethanollic extract	Water extract
1	Alkaloids	+	-
2	Flavonoids	+	+
3	Terpenoids	+	+
4	Saponin	+	+
5	Carbohydrates	+	+
6	Phenols	-	-
7	Amino acid and proteins	-	+
8	Antroquinones	+	+
9	Glycosides	-	+
10	Steroids	-	-

Table no 4.preliminary phytochemical screening:-**PHYTOCHEMICAL TEST FOR CASIA TORA LEAVES**

tested for saponins, phenols, alkaloids, protein/ amino acids, tannins, flavonoids, carbohydrates/ reducing sugars, phlobatannins, anthraquinone, terpenoids, glycosides and resin. This phytochemical screening of the extracts was carried out by standard method.

Test for saponins :

2ml of extract was shaken vigorously with 5 ml distilled water to obtain stable persistent foam. The formation of emulsion indicates the presence of saponins.

Test for phenols :

To 1ml extract, add distilled water followed by few drops of 10% Ferric chloride. The formation of blue or black colour indicates the presence of phenolic groups.

Test for alkaloids :

1ml of 1% HCL was added to the 2 ml of extract in a test tube. A creamy white precipitate indicated the presence of alkaloid.

Test for protein / amino acids :

To 1ml extract, add 2ml water followed by few drops of Conc. HNO_3 . The formation of yellow colour indicates the presence of protein / amino acids.

Test for tannins

To 2 ml extract, 1ml of distilled water and 1-2 drops of Ferric chloride solution was added and observed for brownish green or a blue black coloration.

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Test for flavonoids:

A few drops of 1% NH_3 Solution were added to 2 ml of extract in a test tube. A yellow coloration was observed for the presence of flavonoids.

Test for carbohydrates/ reducing sugars:

5-8 drops Fehling's solution was added to 2ml extract. The mixture was heated in boiling water bath for 5 min. A red-brick precipitate shows the presence of reducing sugars.

Test for phlobatannins :

1ml extract was boiled with 1% HCL and the disposition of red precipitate indicates the presence for phlobatannins.

Test for anthraquinone :

2ml extract was mixed with chloroform and 1ml of 10% ammonia solution was added. The presence of a pink, red or violet colour indicates the anthraquinones.

Test for terpenoids :

2ml extract was mixed with 2ml chloroform in a test tube. To this, 3ml Conc. H_2SO_4 was carefully added along the wall of the test tube to form a layer. An interface with a reddish brown coloration confirmed the presence of terpenoids.

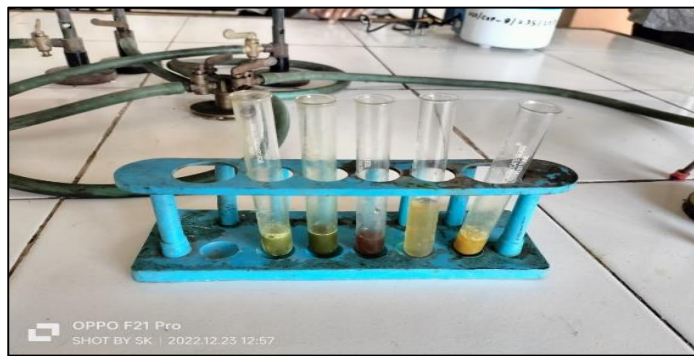


Fig no 4.

FORMULATION

S.No	Ingredient	Botanical Name	Part Used	Form	Qty Taken
1	Cassia tora	Senna tora	Leaves	Powder	25g
2	Lalchandani	Santalum album	Heartwood	Powder	7.5g
3	Elaichi	Elettaria cardamomum	Seeds	Powder	9.5g
4	Haldi	Curcuma	Seeds	Powder	9.5g
5	Fatakadi	Potash alum	powder	Powder	6g

Table no 3. Formulation

PROCEDURE AND FORMULATION OF LEP:

Sr no.	Ingredient	Qty taken (gm)
1	Cassia tora	25g
2	Lal chandan	7.5g
3	Elaichi	9.5g
4	Haldi	9.5g
5	Fatakadi	6g

Table no 5. Formula for formulation

Using 85 mesh the powdered ingredient were sieved and accurately weighed, then mixed geometrically to ensure even mixing. In order to evaluate it, the product was placed in an airtight container. Lep cream is prepared by mixing powder with cream base (Ghee) in desired consistency of making soft cream. The prepared mixture was then placed in the refrigerator overnight before application.



Fig no 5. Lep cream



fig no 6. Powder

EVALUTION OF LEP:-

Pharmaceutical Study:-

A range of physio-chemical properties, such as colour, smell, consistency, texture, spreadability, loss on drying, ash value, and PH, were measured.

Skin Irritation Test:-

Skin irritation test was performed to determine skin sensitivity by applying Lepa and its routine structures to intact skin. Following application, the Lepa was kept in contact with intact skin for 15 minutes and then washed off with normal water. The process lasted for one week. Redness, rashes, burning sensations, itching, and other unfavorable reactions were observed on the skin. In addition, the Lepa formulation left the skin smooth with no signs of skin dryness normally associated with Lepas.(9)

Spreadability and Spreading Coefficient:-

A wooden board with scale and two glass slides, one of which was attached to the wooden board, were used to determine the spreading coefficient (spreadability) of the formulas. Another was movable, attached to a cord that passed through a pulley and carried a weight. A sample of formulation (1g) was placed between two glass slides. Weight (100g) was placed on the upper slide and allowed to rest for 5 minutes to provide a uniform film of the formulation. The weight was removed, and the top slide was subjected to a pull obtained by attaching a 30g weight over the pulley. The time (sec) required for the slide to travel a pre-marked distance was recorded.(10)

Loss on Drying:-

A petri dish was weighed first and then 50g of a test sample was added. The weight of the petri dish with the added sample was also noted. Next, it was placed in a hot air oven set to 105°C. Based on the following formula, the dry loss was calculated: $\text{Loss on drying} = \text{Wt. before heating} - \text{Wt. after heating}$ % Loss on Drying = $\frac{\text{Loss on Drying}}{\text{Wt. before Heating}}$.(11)

Ash Value :-

Ash values are used to determine quality and purity of crude drug. It indicates presence of various impurities like carbonate, oxalate and silicate. A high ash value is indicative of contamination, adulteration, substitution or carelessness in preparing the formulation. Total ash determination constitutes detecting the physiological ash (ash derived from plant tissue) and nonphysiological ash (ash from extraneous matter, especially sand and soil adhering to the surface of the drug). For its detection, 2g of each formulation were placed separately in a suitable tarred crucible of silica previously ignited and weighed. The powdered drugs were spread into an even layer and weighed accurately. The materials were incinerated by gradually increasing the heat, not exceeding 450°C until free from carbon, cooled in a desiccator, weighed and percentage ash was calculated by taking in account the difference of empty weight of crucible & that of crucible total ash.

**Fig no7. Ph****fig no 8. Ash****Result of evaluation:-**

Sr. no	parameter	Powders	Cream base
1	color	Pale yellow	Brownish
2	odour	Characteristic	Characteristic
3	Touch	Fine powders	Greasy
4	Consistency	Soft	Soft
5	Texture	Smooth	Smooth
6	Spredability	NA	28.20cm
7	Loss of drying	6.66g	NA
8	% of loss	66%	NA
9	Ash value	15%	NA
10	Ph	5.38	5.38
11	Skin irritation test	NA	Non-irritable

Table no 6. Result of evaluation

CONCLUSION

The notion that herbal formulation are safer and have fewer negative effect than synthetic formulation has led to a sharp increase in demand for tjem. An herbal lep product that was ewcently produced demomstrated good cosmeic qualities without the need of moisturising cream. Lepa cream will aid in skin beautifying by lowering skin pigmentation, melasma, acne marks, and skin lightening because of its faieness herbal components.

As many of the secondary metabolite show anti-inflammatory amd analgesic properties by the various mechanism of action, so the drug cassia tora lep can be provide as topical anti-inflammatory and anti-psoriatic medicine. The further research work on this highly effective drug is an process.

REFERENCE

1. Vijayalakshmi. A*, Madhira Geetha
Department of Pharmacognosy, SRM College of Pharmacy, SRM University, Tamil Nadu, India.
Virugambakkam, Chennai, Tamil Nadu, India.
2. Rahimullah Shaikh, Imran Zainuddin Syed, Department of chemistry, Government Vidharbha institute of science and huminity Amravati , Maharashtra , India, 2015.
3. Edeoga H.O, Okwu D. E. & Mbaebie B.O. African J.Biotech ,4, 2005, 685-688.
4. Pawar Harshal Ashok et al IJRAP 2011 – 2[3] 793-786 , Dr. L.H.Hiranandini College of pharmacy, Smt. CHM Campus , opp. Railway station , ulhas nagar dist. Thane, Maharashtra , India.
5. Navneet Kumar Verma , Asheesh Kumar Singh, Amit Kumar Chaurasiya, Buddha Institute of pharmacy,GIDA, Gorakhpur , UP , India , 7|2021.
6. A K Meena , Uttam S Niranjn , AK Yadav , Brijendra singh , AK Nagaria and MM Rao, National institute of of ayurvedic pharmaceutical research , Patiala -47001 , pncjab , India , 7|2011.
7. Harshal A Pawar and Priscilla M.D.mello Department of Pharmacognosy, Dr.L.H.Hiranandani Cillege of pharmacy, Smt. CHM Campus , opp. Railway station , ulhas nagar dist. Thane, Maharashtra , India.
8. Manmohan Singhal and Niraj Kansara, School of pharmaceutical sciences, Jaipur national university, Jaipur,rajasthan 302025,30\ 2012.
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11. Acharya TK Chatterjee IB, Isolation of Chrysophanic acid-9-an throne, the major antifungal principle of cassia tora,Lloydia,1975;38;218-220.