1 SUMMARY, CONCLUSION, MAJOR FINDINGS, FUTURE SCOPE AND LIMITATIONS OF RESEARCH WORK

1.1 SUMMARY
Skin has been portrayed as biggest organ in body as it compresses or secured entire body. skin is covering vast majority of external body, which changing in its thickness and its structure. external layer of skin is termed as epidermis. Cells in epidermis replicate and restore layer consistently. This is essential on grounds that skin is primary blockade shielding body from harming elements. hidden layer is called dermis. Dermas layer nourish skin and give solid to bolster. Fibro versatile tissue is giving skin its structure. Dermas consist of two zones. upper zone is slim papillary dermis, and lower zone is reticular dermis. deepest layer is hypodermis. Hypodermis is differing most, with predominantly fat tissue. Sebaceous glands, hair follicles, sweat glands and nerve filaments interconnect all skin layers Epidermis is considered as vascular however dermis is vascular. These implies that, epidermis is profoundly subject to legitimate blood stream for its typical capacity.

Skin go about as boundary for chemicals and bright light. It likewise serves as shield for microorganisms & shields from mechanical tear. Thermoregulation is profoundly subject to blood stream to skin. Vitamin D is synthesized in epidermis. Fat tissue is metabolized into vitality source when required. skin is additionally imperative for appearance and correspondence. Solid skin has various properties of significance to our wellbeing & prosperity and has surface pH in scope. Hurt skin can to great degree diminish individual fulfillment and reason undesirable wellbeing issues when left untreated. Diabetic ulcers, vein and venous ulcers & blasts can get opportunity to be test to treat. Right when course is diminished, circulatory system cut down or dermis hurt, harm recovering takes longer time and damage may progress into consistent one.

Term skin inflammation reaction has been described as disruption of normal anatomical structure and more essentially, limit. Skin inflammation reaction can be made by physical, engineered, microbial, thermal or immunological attack against tissue. development of skin inflammation reaction recovering consists of fused cell and biochemical events provoking reestablishment of essential and helpful dependability
with recover of nature of hurt tissue. In this manner purpose of treating harm is to either hack down time required for recovering or to minimize undesired results. Retouching is brain boggling and component change that results in reconstructing of anatomical soundness and limit. Skin inflammation reaction has been described as disruption of run of mill anatomical structure and more altogether, limit. Skin inflammation reaction can be conveyed by physical, manufactured, microbial, thermal or immunological attack against tissue. development of skin inflammation reaction retouching consists of consolidated cell and biochemical events inciting reestablishment of essential and utilitarian dependability with recoup of nature of hurt tissue. Thusly purpose of treating damage is to either slash down time required for recovering or to minimize undesired results. Retouching is brain boggling and component set up that results in recovery of anatomical lucidness and limit. Most overall saw signs of harm are torment, swelling, and going on. measure of demolition, swelling, and spilling of damage depends on upon hurt's region and mechanism of devilishness. Some far reaching cuts may not hurt all that much in case they are coordinated in zone that has few nerve endings, while scratched spots of fingertips (which has more key number of nerves) can be to extraordinary degree troublesome, for case, paper cut. couple cuts may deplete more if area included has more important number of veins, for case, scalp and face. Most injuries can be overseen at home with routine therapeutic aide including exhaustive washing and dressing to avoid sullying.

Taking after are reasons why therapeutic thought ought to be gotten for mischief:

- If harm is aftereffect of massive compel or mischief and other injures are be available.
- If exhausting can't be finished even with persistent weight and rise.
- If concern skin inflammation reaction obliges repair with sutures (joins). size and area of damage are vital musings. Most facial injuries might should be repaired for therapeutic reasons, particularly in event that they fuse lip or eye.
- If harm is acknowledged by creature eat. No not as much as half of canine eats, 80% of feline nibble, and 100% of human nibble persuade chance to be contaminated. There is in like way need to consider rabies immunizations if fitting.
- If mischief is astoundingly shabby and can't be easily cleaned.
In event that there is certification of contamination including redness, swelling, augmented destruction, and discharge at harm.

If tetanus vaccinations are not front line, then promoter is required inside 48 hours. On slim chance that patient has never been immunized, introductory tetanus killing movement wit.

X-ray may be taken to check for broken bones (breaks). X-sections may what's more be imperative in hunting down outside demand that may have been embedded in cut. Fluoroscopy done at bedside may help find outside bodies that are basically secured. Ultrasound may in like way be used to assist in judgments of remote bodies in harm.

Most skin inflammation reactions may be managed at home. Shallow scratched ranges and cuts can be cleaned, antibacterial treatment joined, and then secured with ban-help or with lighting bandage. Depleting can lot of time be controlled with direct weight to hurt, and if possible, lifting debilitating site over heart's level. This licenses gravity to help reduce with blooding stream to hurt. Most depleting will stop within 10 minutes, and after short time, dressing can be set over evil.

In occasion that depleting is not issue, devilishness can be cleaned using spout water to wash out any debris to lessen risk of sickness. Channel and lake water can contain diverse sorts of little life shapes that can achieve huge ailment. It is not upheld to clean skin inflammation reactions with degraded water. More essential skin inflammation reactions are anguishing and scouring is less advised. In occasion that harm needs supportive thought, steps can be taken at home to begin treatment. Unless there is key damage, there is adequate time to examine for accommodating thought and it is honest to goodness to take couple of minutes to spotless and dress underhandedness. Skin inflammation reactions can be clinically sorted as serious and incessant as demonstrated by their time compass of healing. Chronic skin inflammation reactions take longer than 8-12 weeks to recover. Representations fuse vein and venous ulcers, diabetic leg ulcers and weight skin inflammation reactions. Serious skin inflammation reactions can be surgical skin inflammation reactions, seethe skin inflammation reactions, or skin inflammation reactions from damage. Skin skin inflammation reactions can be moreover organized by number of skin layers that are impacted. Shallow skin inflammation reactions are damage to epidermis alone. Fragmented thickness skin
inflammation reactions are damage to epidermis and more significant layers, hair follicles, sweat glands and veins. Full thickness skin inflammation reactions are mischief to fat and more significant tissues. Skin inflammation reactions oblige awesome circulation system and extraordinary access to rich blood on account of oxygen keeping final objective to recover. Dietary nourishment is vital for fast recovery. Patching can be hindered by low oxygen stream, illness or absence of solid sustenance. Skin inflammation reactions that repair themselves and that continue normally by taking after flawless and purposeful modifying pathway, with picking deferred consequence of both satisfying and anatomical recuperation, are named unimaginable injuries. time course of recuperating as rule comes to from 5 to 10 days, or inside of 30 days. Astounding injuries can be gotten as outcome of traumatic loss of tissue or surgical procedure.3,5

For occasion, operation to deplete sensitive tissue tumor coordinated in skin and central parenchyma can as not precisely dependable standard result in huge yet non-sullied damage that can't be recovered by basic point, on account of liberal mutilation within tissue. Traumatic skin inflammation reactions are likewise as great part of time as could be ordinary under circumstances experienced. They may meld simply tricky tissue or they may be joined with bone breaks. These joined injuries have been delineated by portrayal method of AO Foundation which is champion amongst most extensive and taking all things into account used. Included inside this GROUP structure are closed and open breaks with evaluation of skin, muscle, tendon and neurovascular injuries.21 slack of AO Foundation's game-plan system is that level of deviousness to muscles and tendons is considered, as it picks appraisals of hurt member. Unending injuries are those that discharge to advance through ordinary times of settling and they can't be repaired in conscious and beneficial manner. recouping framework is missing and disturbed by unmistakable parts, which put off one or more stages in times of hemostasis, compounding, develop or advancing. These variables join polluting, tissue hypoxia, decay, exudate and abundance levels of provocative cytokines. driving forward condition of aggravating in harm makes course of tissue reactions that together copy non-recuperating state. Since recouping then continues in unco-ordinated way, steady and anatomical results are poor and these injuries once in while relapse. Chronic injuries may happen by morals of unmistakable reasons, including naturopathic, weight,
vein and venous insufficiency, influences and vasculites. Jumbled harm is extraordinary substance and is depicted as mix of sullying and tissue defect. Infection identifies with enduring danger to hurt. clarification behind blemish, interestingly, moves because of traumatic or post-convincing etiology, or wide tissue resection (e.g. in tumor association). Each reshaped is ruined free of reason, size, zone and association. Whether or not demonstrate pollution makes relies on upon after harming propensity, number and kind of downsized scale organisms, moreover on near to blood supply and quiet's trademark resistance. Normal characteristics of infirmity are five signs and manifestations that have been all around reported: redness, warmth, torment, edema and debacle or constrained farthest point in influenced part. rehash of skin inflammation reaction pollutions relies on upon sort or surgical technique and region of skin inflammation reaction.

Other criteria considered amidst skin inflammation reaction asking for solidify etiology, level of degradation, morphological characteristics and correspondence with void or strong organs. Etiology deals skin inflammation reactions as showed by trigger variable into skin inflammation reactions, scratched degrees, bundles, cuts, cuts, incision injuries, squash skin inflammation reactions, shot injuries and burns. According to level of sullying, injuries are depicted into three GROUPS as tails: (i) aseptic injuries (bone and joint operations); (ii) undermined skin inflammation reactions (stomach and lung operations); and (iii) septic injuries (abscesses, gut operations, etc). Skin inflammation reactions might in like way be assembled as close, where basic tissue has been hurt yet skin has not been isolated, or as open, where skin layer has been harmed with secured tissue.

Dash G. et al (2011), mulled over harm utilizing in order to recover effects of another Polyherbal definition extraction and passage point skin inflammation reaction models. Six Polyherbal treatments containing methanol leaf EXTRACT of Ageratum conyzoides Linn., Argemone mexicana Linn., Heliotropium indicum Linn and bark concentrate of Alstonia scholaris (L.) were arranged and strove for skin inflammation reaction recovering development in rats using extraction and incisiondamage models and skin unsettling influence study. Each one of social occasions of animals treated with distinctive definitions showed essential (P<0.01) increase in rate of turned tightening
when stood out from specific control get-together of animals on differing days of study starting from Day 8
Ipek P. et al (2011), contemplated harm recovering headway of aq. Concentrate of Colutea cilicica Boiss. & Bal. sustenances made from beginning. customary thing focus treated parties of animals demonstrating 78% smothering in skin inflammation reactions, which was close weight estimation of reference pharmaceutical Madecassol (100%).
Jain S. et al (2009), studied mischief recovering change of Polyherbal tallying of establishments of Ageratum conyzoides Linn. mischief remedying property of Ageratum conyzoides has every one of stores of being outcome of area of it most part measures, which energizes recovering process and gives breaking quality to recovered harm.
Jaiswal S. et at (2004), considered grouped plants used for tissue recovering of animals. 58 unmistakable sorts of plants used by district social solicitations of specific area for tissue altering in animals. They are help full in break recovering, tissue settling and repairing of material tissues in animals.
Jasmine S. et al (2011), surveyed Diuretic activity of Ethanolic, Chloroform and Ethyl acidic ACID determination EXTRACT of leaves of Erythrina indica. activity was differentiated and frusemide as stanbard. result shows all EXTRACT have tremendous diuretic activity.
Mamood A. et al (2009), thought about damage repairing capacity of Lantana camara leaf uproot in exploratory rats. Ethanolic concentrate of L. camara was evaluated for their damage recovering potential in rats. Curved dressed with placebo containing 10% concentrate in far-reaching way stimulate skin inflammation reaction retouching development appeared differently in relation to contorted dressed with placebo containing 5% concentrate.
Nayak S. et al (2007), mulled over impact of laser photograph incitement on skin inflammation reaction mending movement. Amid examination it is found that laser photograph incitement can improves collagen generation in extraction skin inflammation reactions utilizing extraction twisted model as part of Wister rodent model. Helium-Neon laser photograph incitement encourages tissue repair process by quickening collagen creation in incessant injuries.
Prasad S. et al (2011), examined injury mending action of methanolic leaf concentrate of Pongamia pinnata in pale skinned person rats utilizing extraction and entry point skin inflammation reaction models. 200mg/kg/day of leaf concentrate of Pongamia pinnata was assessed for its injury mending action and contrasted and povidone iodide (stanbard). Balm arranged from methanolic leaf concentrate has noteworthy injury healing movement, which was similar to that of standard promoted planning.

Rathi S. et al (2006), assessed fluid leaves concentrate of Moringa oleifera for skin inflammation reaction mending movement in pale skinned person rats. Aquous concentrate of leaves of Moringa oleifera was learned at dosage level of 300mg/kg body weight utilizing resutured cut, extraction and dead space twisted model in rats. Critical increment in twisted closer rate, skin breaking quality, granuloma breaking quality, hydroxyl proline substance and lessening in scar range was watched.

Shenoy M. et al (2011), evaluated harm repairing activity of ethanol and aquous concentrate of H. indicum leaves in wistar rats. Results shows that aquous and Ethanolic leaf concentrate shows isolating devilishness repairing activity against each of three damage models.

Shikha S. et al (2009), separated harm utilizing in order to repair activity of Polyherbal SOLUTION sorted out EXTRACT of Curcuma longa, Tridax procumbens and Eclipta alba. demulcent unnoticeable segments containing EXTRACT of effectively communicated herbs planned and their naughtiness adjusting change was surveyed on likely impelled open damage in pale cleaned individual rats. It was found that treated insidiousness showed speedier rate of twisted withdrawal than control and skin inflammation reaction settling effects increase with joining of homemade concentrate.

Shreedevi S. et al (2011), surveyed harm recovering development of Polyherbal Siddha SOLUTION in extraction and passage point curved model in Wistar rats. In extraction skin inflammation reaction models Siddha Kalimbu or Ointment make discriminating reduction in season of epiphtelization when diverged from control. Framycetin skin cream which is used as stanbard also convey critical reducing in season of epiphtelization.

Shukla A. et al (1999), considered in vivo and in vitro skin inflammation reaction changing progression of asiaticoside detached from Centella asiatica. In guinea pig punch skin inflammation reactions topical livelihoods of 0.2% methodology of
asiaticoside went on 56% growth in hydroxyproline, 57% change in determination, widened collagen substance and better epithelisation. Asiaticoside demonstrates significant mischief repairing activity in standard and in like way surrendered recovering models.

Solanki R et al (2011), thought about that Medicinal plants are rich wellspring of element fixings and give more secure and monetarily wise way to deal with treat skin diseases. This article hurls light on usage of helpful plants in treatment of skin ailments in different areas of world.

Subhashini S. et al (2011), looked into phytochemical properties and skin inflammation reaction retouching activity of Adhatoda vasica leave in Swiss pale cleaned individual rats. Five particular dissolvable EXTRACT were prepared from plant's takes off. Methanol, ethanol, ethyl acidic ACID determination, chloroform and hexane were used for rapid's extraction fixings. Extraction turned model on Swiss pale cleaned individual mice was used to assess damage patching development of gets out. Astonishing harm recovering development was seen with medicine SOLUTION of methanol separate at 1% obsession.

Subramaniam R. et al (2011), Malayali's in his general region focused on effect of far reaching number of plant thinks, pastes and decoctions to retouch skin inflammation reaction \ cuts. examination realized conspicuous confirmation of 82 remedial plants more than 39 families to recover skin inflammation reaction \ cuts.

Swati R. et al (2011), made and considered evil altering change of Ayurvedic Formulation on extraction and zone point models in rats. Skin inflammation reaction-repairing development was overviewed by rate of time of epithelialization and skin-breaking quality. Histological examination of granulation tissue was done to know level of collagen outline in damage tissue. treated animals showed essential diminishment in damage range up to (P<0.001) and speedier rate of epithelialisation (23.17±0.54). In zone point skin inflammation reaction model, definition treated animals showed key skin-withdrawing quality to 420.33±5.92. Ayurvedic SOLUTION qualities solid harm altering headway, which could be ordinary choice of answer for skin inflammation reaction recovering however less great than stanbard Nitrofuraz
Tambekar H. et al (2010), considered effect of contrasting methodologies expectedly used as bit of ayurvedic game-plan of SOLUTION in treatment of unmistakable successful infections, for instance, Pashanbhed churna, Arjuna churna, Bilba churna, Gokharu churna.

Himesh S. et al (2012), focused on and redesignd information on botanicals for skin inflammation reaction recovering development. Recovering of skin inflammation reaction incorporates development of flighty SOLUTION of platelets, tissue sorts, and cytokines and improvement variables. Distinctive phyto element compound may improve recovering time and skin inflammation reaction result. Completely 46 plants have been accounted for their uses against skin inflammation reaction and related injuries.


Sanbhya S. et al (2011), concentrated on activity of different plants as antidiabetic and as skin inflammation reaction healing specialists. Diabetes defers injury mending procedure because of numerous reasons. conventional plants helps in avoiding same issues, which was demonstrated in their study.

Sing J. et.al (2005), contemplated injury healing action of leaf EXTRACT of Elephantopus scaber and deoxyelephantopin which is disconnected from Elephantopus scaber. ethanolic concentrate of Elephantopus scaber and disengaged compound deoxyelephantopin advances injury mending in all three injury models. injury mending movement was more critical in deoxyelephantopin treated creatures.

Thakur R. et al (2011), studied injury mending viability of different natural extract. Skin inflammation reaction healing adequacy was assessed in extraction skin inflammation reaction, incision injury, dead space and blaze skin inflammation reaction models. different techniques for extraction of plant material are likewise considered. natural EXTRACT and parts successfully quit seeping from intense and new twisted, restrain microbial development and quicken healing procedure.
Vinothapooshan C. (2010), assessed impact of different EXTRACT of Adathoda vasica plants. He additionally secluded one compound. Treatment arranged from methanolic concentrate demonstrated noteworthy impact in extraction twisted model in correlation with standard and other two extricates. Movement was gotten to by measuring injury compression, breaking quality, collagen substance study and Histopathological study. Memfin E. et al (2011), examined antimicrobial and skin inflammation reaction healing movement of C. pubescens in rats. phytochemical estimation of ethanolic EXTRACT demonstrates vicinity of different auxiliary metabolites like tannins, terpenes, saponins. ethanolic concentrate of Centrosema pubescens shows huge antibacterial and antifungal action against numerous pathogenic life forms. balm arranged from ethanolic concentrate likewise demonstrated critical injury healing property in rats. Ramesh A. et al (2010), assessed injury healing action of human peel. In India customarily pee has been utilized as part of treatment of smolder and skin inflammation reaction. models chose to get to extract skin inflammation reaction model, entry point skin inflammation reaction model, blaze skin inflammation reaction and dead space skin inflammation reaction model. In extraction and blaze skin inflammation reaction models, huge abatement in time of epihtelialization and waund withdrawal half was seen in all treatment bunches when contrasted with control GROUP aside from low measurement of urea (2.5%), which demonstrated diminishment in just time of epihtelialization. In entry point display, critical increment in breaking quality was found. Robert D. et al (2004), concentrated on different reasons of intense, fibrotic and deferred healing. Different neurotic reactions result in fibrosis and incessant non-mending ulcers. He has recommended new methodologies to treat these clinical issues. Feng G. et al (2010), demonstrated effect of Hyaluronan oligosaccharides drives damage altering through angiogenesis. Studies have given demand that oligosaccharides of HA (o-HA) are fit for engaging neo-vascularization in vitro and progressing circulatory framework or angiogenesis in animal models. Restorative plants have assumed huge part in old conventional frameworks of solution in numerous nations. There is requirement for documentation of examination work did on customary pharmaceuticals. These studies help in ID confirmation of plant material.
It is characterized as treatment of plant or creature tissue with dissolvable were by restoratively dynamic constituent are broken up and large portion of dormant matter stays undisolved. Wide mouth bottle or funnel shaped cup which can be well plug is utilized for maceration process. Close compartment is key to avoid dissipation of menstrum in this procedure medication is put with entire menstrum in shut holder for seven days fluid is strained and marc is squeezed. Communicated fluid is blended with strained fluid. It is than channel to make unmistakable fluid. Last volume is not captured. filtrate is vanished in vacuum to give last residue. Every one of three were Opuntia ficus-indica, Piper nigrum, Pterocarpus santalinus subjected for extraction by utilizing chloroform water. concentrate acquired by above depicted technique are put away in fridge for further research process. Cush shade dried product of Opuntia ficus-indica to fine powder (# 40 size cross section), present 400 gm drug powder for proceeds hot extraction (soxhlet) with petroleum ether (40-60°C), CHCl3 and liquor. For new dissolvable for removing powder substance was dried in hot air ovan at temperature of 50oc for 60 minutes. dissolvable get refined with every weight after fruitful extraction. Its % was finding in term of air dried weight of plant material.

Piper nigrum:
Cush shade dried product of flute player nigrum to fine powder (# 40 size lattice), present 400 gm drug powder for proceeds hot extraction (soxhlet) with petroleum ether (40-60°C), CHCl3 and liquor. For new dissolvable for extricating powder substance was dried in hot air broiler at temperature of 50oc for 60 minutes. dissolvable get refined with every weight after effective extraction. Its % was finding in term of air dried weight of plant material.

Pterocarpus santalinus:
Cush shade dried stem bark of pterocarpus santalinus to fine powder (# 40 size lattice), present 400 gm drug powder for proceeds hot extraction (soxhlet) with petroleum ether (40-60°C), CHCl3 and liquor. For new dissolvable for removing powder substance was dried in hot air ovan at temperature of 50oc for 60 minutes. dissolvable get refined with every weight after effective extraction. Its % was finding in term of air dried weight of plant material which was continue further for synthetic test. Subjective compound tests
were led with specific end goal to distinguish different phytoconstituents. With alcoholic arrangement of potassium hydroxide concentrate was refluxed independently up to finish saponification was occurred. In water saponified concentrate was weakened and with utilization of diethyl ether unsaponifiable matter was separated. ethereal concentrate was dissipated and deposit (unsaponifiable matter) was subjected to taking after test by dissolving buildup in chloroform.

Salkowaski Test:

In this test in concentrate arrangement conc. H2SO4 was directed drop tight clamp with shaking. After this it took into consideration stand. In holder vicinity of red lower showing vicinity of sterols.

Liebermann-Burchard Test:

A couple drop of acidic anhydride was directed in test arrangement treated and blended legitimately. After this conc. H2SO4 was included from sided of tube. Subsequent to including H2SO4. On off chance that ring at intersection seem chestnut and supernatentant seems green, it demonstrates vicinity of Sterol.

Sulphur Test:

On off chance that it contains sulfur, it will soaks in test arrangement.

TEST FOR STEROIDAL GLYCOSIDES

The arrangement of concentrate was readied with water and 1 volume of 10% v/v arrangement of sulphuric corrosive arrangement was included, warmed on water-shower for 60 minutes and separated hydrolyzed concentrate with chloroform ass dissolvable, chloroform division was distanced and thought portion was tried for steroids/phytosterols.

TEST FOR TRITERPENOIDS

The test extricate arrangement was readied by dissolving concentrate in chloroform.

Salkowaski Test:
1 mL conc. H2SO4 was blended to test arrangement of concentrate took after by shaking and considered standing. On off chance that lower layer turn brilliant yellow it demonstrate vicinity of triterpenoid.

Liebermann-Burchard Test:

1 mL plain anhydride was combined with test arrangement of concentrate, and blended well with further expansion conc. H2SO4 from inward side mass of T.T. In event that there is red shading produce in lower stratum shows vicinity of triterpenoid.

TEST FOR GLYCOSIDES

Test arrangement was readied by dissolving concentrate in liquor 90% or watery alcoholic arrangement.

Baljet's Test:

Yellow to orange shading get created when it treated with sodium picrate.

Keller-Killiani test for digitoxose:

1 mL Fecl3 arrangement was include test arrangement and blended legitimately. Further H2So4 containing Fecl3 arrangement is blended, itformulae two layers. Lower stratum indicates rosy chestnut with ruddy cocoa shade of upper layer which changes to somewhat blue green.

TEST FOR SAPONINS

Test arrangement was readied by dissolving concentrate in water.

Foam test:

In event that Solution on shaking shows up froth improvement and may be steady for least 15 mins.

Haemolysis test:

2ml of 18% sodium chloride in two test tubes is taken. To one test tube added refined water and to other 2ml test arrangement. Few drops of blood is added to both test tubes, blended and watched for haemolysis under magnifying instrument.
TEST FOR CARBOHYDRATES

The test arrangement was readied by dissolving test separate with water hydrolysed with 2N hydrochloric and subjected to taking after tests.

Molisch’s test:

1 mL reagent segment and 2ml of conc. H2SO4 included gradually from internal side mass of tube in test arrangement shows purple ring at intersection of two fluids.

Barfoed test:

Reagent get include test arrangement and amid bubbling in water-shower it indicates block red shading encourage.

Benedict test:

Reagent get include test arrangement and amid bubbling in water-shower it demonstrates rosy cocoa hasten.

Tollen's phloroglucinol test:

2.5ml of concentrated HCL and 4ml of 0.5% phloroglucinol are treated with 1-2ml test arrangement. Warmth, yellow to red shading shows up.

Cobalt chloride test:

2ml cobalt chloride included 3ml of test arrangement than bubble it and cool. In wake of cooling 1 mL NaOH arrangement get included test arrangement. On off chance that arrangement demonstrates greenish blue it affirms vicinity of glucose or purplish it affirms vicinity of fructose or upper layer greenish blue and lower layer purplish it affirms vicinity of blend of glucose and fructose.

TEST FOR ALKALOIDS

The test arrangement was readied by dissolving concentrate in weaken hydrochloric corrosive.

Mayer’s test:
Reagent - potassium mercuric iodide get treated with test arrangement it gives cream shaded encourage.

Hager's teat:
A reagent - soaked picric corrosive arrangement in acidic arrangement gives yellow ppts.

TEST FOR PHENOLICS/TENNINS
Concentrate is broken up in 90% liquor.

Ferric chloride test:
1 mL FeCl₃ arrangement treated with test arrangement treated gives dull shading.

Gelatin test:
A gelatin with test arrangement gives white encourage.

TEST FOR PROTEINS
The concentrate is break up in water.

Millon's test:
In test arrangement reagent get include and bubbled heated water shower. In event that arrangement get red stain on warming, it affirms presence of protein

Xanthoproteic test:
Test arrangements responded with 40% sodium hydroxide and weaken copper sulfate arrangement gives blue shading.

Biuret test:
Teat extricate responded with 40% sodium hydroxide and weaken copper sulfate arrangement indicates blue shading.

TEST FOR AMINO ACIDS
Ninhydrine test (General test):

Warmth 3ml test and drops of 5% ninhydrin arrangement in bubbling water shower for 10min. Purple or somewhat blue shading shows up.

Test for tyrosine:

Blend of 3ml of test solu. also, 3 drops Millon's reagent get warmed. Arrangement demonstrates dull red shading.

Test for tryptophan:

Test arrangement (3 ml) and few drops of glycoxallic corrosive and concentrated sulphuric corrosive. Ruddy violet ring seen at intersection of two layers.

Test for cysteine:

Test (5 ml) and few drops of 40% sodium hydroxide and 10% lead acetic acid derivation arrangement. Bubble it and after that dark hasten of lead sulfate is shaped.

TEST FOR GUMS

Test arrangement is hydrolysed and treated with Benedicts reagent. Red shading gets created.

Rendering to Association for OECD and CPCSEA guideline serious oral harmful quality study was finished. It is chiefly in light of systemic strategy with use of humblest measure of animals each stride; enough information is getting to be familiar with exceptional hurtfulness of test substance to allow its game plan. With clear picked estimations of substance is given to trial animal by oral annihilation. Using three animal of single sex in each stride substance gets attempted. Nonattendance or present of compound related destruction rate of animals dosed at one stage will pick resulting step. No all more testing is central, Dosing of three unique animals with same estimations, Dosing of three animals at taking after higher or taking after lower estimations level. frameworks enable judgment concerning requesting test substances to one of game plan of lethality classes described by modified LD50 cut of characteristics.
Sound youthful female Albino wistar rats weighing between 120-150gm had been used for intense poisonous quality to decide LD50 of different concentrates. Absolutely they were four five gatherings, every gatherings comprises of three creatures. temperature in trial gets kept up by 250C. Lightning was counterfeit, grouping being 12 hr dull, 12 hr light. customary research facility eating routine was nourished, with boundless supply of drinking water. creature were aimlessly picked, stamped for individual ID, and kept in their pens for 5 days before shutting to consider acclimation of research facility condition. All concentrate readied as suspension by triturating with either water or 2% of gum acacia or 01% twean 80. test substances are administrated in solitary measurements by gavages utilizing intragastric tube. Creatures were firstly fasted and after that creatures were weighted and test substance was regulated. Subsequent to dosing, sustenance was withheld for 3-4 hrs in rats. In each stride 3 animals were used. Since there was no information on substance to be checked (i.e. concentrates), starting estimation was 300mg/kg body weight up to 5000 mg/kg body weight.

In wake of dosing animals were viewed at first after each 30 min upto 24 hours. In all cases end rate was seen inside beginning 24 hr. additional recognition like varieties in skin with eyes and mucous layers, moreover breathing, blood, autonomic and central tangible frameworks and behavior outline. Thought was in like manner given to impression of tremors and writhings. 1/tenth of lethal estimation is considered as therapeutic measurement.

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<th>Therapeutic dose</th>
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<td>Opuntia ficus-indica extract</td>
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**Dose selection and finalizing LD50 cut off value of Piper nigrum extract**

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**Dose selection and finalizing LD50 cut off value of Pterocarpus santalinus extract**

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<tr>
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1/10th of this LD50 was taken as EC50 (therapeutic dose) for pharmacological activity. In wake of dosing animals were viewed at first after each 30 min upto 24 hours. In all cases death rate was seen inside starting 24 hr. In all cases destruction was seen inside 24 hr. Additional recognitions like changes in skin and eyes and mucous movies also respiratory, circulatory, autonomic and central on edge centers and romatomotor activity and behavior outline. Thought was moreover given to view of tremors and shakings. After all discernment not singular effect was found in animal.

Weigh precisely Carbopol 934-P and melted in 100 mL of water for 2 hours drenching with 600 RPM tumult then infiltration enhancer was added to defined gel which may forestall drying of gel. To this fluid arrangement of Triethanolamine was included with moderate tumult with persistent blending. test concentrate was be include gel. Preliminary trials was undertaken to develop Anti acne gel. various concentrations of Carbopol 934 was taken. It was done to evaluate organoleptic property, Occlusiveness and wash ability of gel. pH was check by digital pH meter of formulated gel. 50 gm of prepared gel was kept in 50 mL suitable beaker and spindle Groove will dipped at specific RPM in Brookfield Viscometer. This was done three times and recorded observation will considered as mean of viscosity. accurately weighed quantity of 1 g of gel was pushed among two slides and left as such for about 5 minutes. Diameters of speed circles will measure in cm and were taken as comparative values for Spreadability when no further spreading. Readings attained are mean of three determinations.
The consistency of prepared gel was determined by pressing between thumb and index finger. Minor quantity gel is wiped on skin of back of hand to check homogeneity and grittiness.

The rats will be distributed in three groups of each contains six rats. Zone of 4 cm² of dorsal slice of all group rats had shaved and wiped using surgical spirit. Accurate amount of Topical formulation of Group-II, Group-III, was applied over site where as Group-I was left as standard as shown in Table 4.5. test sites were checked for Erythema and edema for 24 hrs. Standard score for primary skin irritancy studies will be presented in Table 4.6.

By checking potency of different drug extract polyherbal gel was made using different probability of bioactive substance. These formulations were evaluated for acute toxicity and LD50 was calculated.

*Calculating LD50 of different formulation.*

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>Extracts</th>
<th>LD50 Dose</th>
<th>Therapeutic dose</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Optunia ficus-indica fruit, Piper nigrum fruit and Pterocarpus santalinus</td>
<td>2000mg/kg</td>
<td>200mg/kg</td>
</tr>
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Piper Nigrum Fruit loss it’s weight by 0.62 % w/w after LOD study. It shows total ash value, acid soluble ash value and water soluble ash value at about 18 % w/w, 13 % w/w and 14 %w/w respectively. It contain 14.3 % w/w alcohol, 15.34 %w/w water, 2.5 %w/w chloroform and 1.7 %w/w pet-water. Pterocarpus santalinus stem bark loss it’s weight by 0.62 % w/w after LOD study. It shows total ash value, acid soluble ash value and water soluble ash value at about 6.67 % w/w, 4.22 % w/w and 5.17 %w/w respectively. It contain 12.20 % w/w alcohol, 16.47 %w/w water, 5.42 %w/w chloroform and 3.20 %w/w pet-water.

Bark extract of opuntia ficus-indica fruit contain 0.39, 2.84, 8.93, 10.32 % of pet-ether, chloroform, alcohol and aqueous respectively. Piper nigrum fruit contain 1.43, 2.76, 15.52 and 15.32 % of pet-ether, chloroform, alcohol and aqueous respectively. Bark extract of Pterocarpus santalinus stem contain 3.38, 3.92, 9.59 and 17.60 % of pet-ether, chloroform, alcohol and aqueous respectively.

Result of Anti acne activity using different extracts were describe as below. First off all extracts were made with different plant extract and using those extracts anti acne activity evaluated on various models. Those extracts which showed potent activity were used for further investigation.

Extract of Opuntia ficus-indica fruit shows 17.5, 23.5, 18, 20 and 18.5 mm zone of inhibition of pet-ether, alcohol, chloroform, aq. And clindamycin respectively after antibacterial assay against Propionibacterium acne after 24 hr. Extract of Opuntia ficus-indica fruit shows 17.5, 23.5, 18, 20 and 18.5 mm zone of inhibition of pet-ether, alcohol, chloroform, aqueous and clindamycin respectively after antibacterial assay against S.epidermidis after 24 hr.
Different extracts of Piper nigrum fruit were evaluated for anti-acne activity on antibacterial assay have been carried out. Extract of Piper nigrum fruit shows 16, 22.5, 20, 22 and 19 mm zone of inhibition of pet-ether, alcohol, chloroform, aqueous and clindamycin respectively after antibacterial assay against P.acne after 24 hr.

Extract of Piper nigrum fruit shows 18.5, 24, 14.5, 18 and 19.5 mm zone of inhibition of pet-ether, alcohol, chloroform, aqueous and clindamycin respectively after antibacterial assay against S. epidermidis after 24 hr. Different extracts of Pterocarpus santalinus stem bark were evaluated for anti-acne activity on antibacterial assay had been carried out.

Extract of Pterocarpus santalinus shows 16.5, 26.5, 21, 22 and 20 mm zone of inhibition of pet-ether, alcohol, chloroform, aqueous and clindamycin respectively after antibacterial assay against S.epidermidis after 24 hr.

Images shows images of gel formulation without drug which were prepared for preliminary trial for selection of final optimized gel formula for preparation of Polyherbal Gel formulation for treatment of acne. Four batches of gels were prepared by differing concentration of Carbopol 934 viz. 01, 1.50, 02 and 2.50 % w/v. These formulated gel were prepared without any API or herbal ingredient. main aim was behind this preliminary trial batches to optimize gel formula for further development of polyherbal formulation.

The ACG 1 shows good Spreadability and viscosity. Therefore, it was taken as optimized formula for further formulation of promising alternative anti-acne gel. Different polyherbal formulation based Gel were prepared and further evaluated.

ACGF2 formula having maximum viscosity (9895 ± 43) and % drug content (92.58 ± 1.57) without skin irritation having pH 6.76 ± 0.01. ACGF5 formula having maximum viscosity (9899 ± 43) and ACGF6 having % drug content (92.83 ± 1.57) without skin irritation. ACGF8 formula having maximum viscosity (9886 ± 41) and % drug content (95.58 ± 1.57) without skin irritation having pH 6.92 ± 0.03. ACGF11 formula having maximum viscosity (9893 ± 23) and % drug content (93.54 ± 1.57) without skin irritation having pH 6.93 ± 0.01. Above formulations shows no skin irritation or any kind of skin reaction like erythema or edema. So formulation have safe effect on skin and non-
irritant to skin. All formulations having good stability after 30 days stability study. Amongst all formulation ACGF8 and ACGF9 shows excellent stability without any drastic change in all analysed parameters. Zone of inhibition study was also performed. Cultures of Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus concentrates were institutionalized by spectroscopic strategy utilizing standard and subjected for determination of MIC utilizing standard convention.

Lowest focus that hindered microbial development (MIC) was 1mg/ml demonstrating unmistakable arrangement showing complete restraint of microorganisms.

Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus. Remove reach and its gel based details were subjected to hostile to skin inflammation screening utilizing Cup-plate dispersion system.

Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus separate rich portion ideal zone of hindrance was discovered like zone of restraint for upgraded natural gel as against to that acquired for standard promoted gel.

In mid twentieth century, when engineered analgesics anti-microbial were not yet broadly accessible, natural drug was overwhelming method of treatment. As engineered medications grew by allopathic arrangement of pharmaceutical gained quick ground guaranteed snappier symptomatic help, individuals started to change over to this framework. Today, after century has slipped by, we now acknowledge confines of allopathic arrangement of drug. Henceforth, there is re-established enthusiasm for natural pharmaceutical. Current innovative advances in western drug notwithstanding, numerous parts of world-particularly creating nations keep on depending on customary frameworks of pharmaceutical for both preventive healing impacts. WHO gauges this figure to be near to 80%, which is borne out by actuality that most current pharmacopeias have no less than 25% medications which are either semi-engineered or made as models along lines of mixes got from plants.

Numerous medications are accessible in business sector for administration of skin inflammation vulgaris. Some of these definitions are benzoyl peroxide, topical retinoid arrangements, topical anti-infection agents and so forth. In any case, these plans have numerous symptoms. Benzoyl peroxide has symptoms, for example, skin bothering and contact dermatitis. It causes arrival of oxygen from carboxyl gathering. This oxygen is in
charge of making high-impact oxidizing environment for anaerobic microscopic organisms which is ended up being poisonous. Reactions of topical retinoid arrangements are desquamation, erythema, expanded affectability of skin to daylight and hyper or hypopigmentation. P. acnes create anti-toxin resistance and thus this limits utilization of anti-microbials. It is anything but difficult to take out such symptoms with home grown topical plan of Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus extricate. Consequently utilization of natural definitions is more helpful to treat skin break out vulgaris

Organoleptic assessment should be possible by method for sense organs, which give most straightforward and in addition speediest intends to build up character immaculateness to guarantee nature of specific medication. Organoleptic characters, for example, shape, size, shading, scent, taste break of stem bark, leaf structure like edge, peak, base surface, venation inflorescence, and so on are assessed. Plainly visible study is morphological depiction of plant parts which are seen by bare eye or amplifying lens.

Minute study is anatomical study which is finished by taking suitable area of plant parts under study. Every recognizing character can be noted down, some of which are held in powder consider moreover. Some of chemicals which are utilized as part of getting clear areas are phloroglucinol, chloral hydrate, safranine, methyl orange, and so on. Powder study is like minuscule study with exception of here dried powder is taken rather than area of plant. All reagents utilized are likewise same like above.

Parameters which are mulled over are dampness content, misfortune on drying, aggregate fiery remains, acid insoluble powder, liquor water-solvent extractive qualities, petroleum ether dissolvable extractive quality, ethyl acetic acid derivation solvent extractive worth, (CH₃)₂CO dissolvable extractive quality, and so forth. Cinder qualities are utilized to focus quality virtue of rough medication. It shows vicinity of different pollutions like carbonate, oxalate silicate. Water dissolvable fiery debris is utilized to gauge measure of inorganic compound present in medications. Corrosive insoluble slag comprise essentially silica demonstrate sullying with gritty material. Dampness substance of medications ought to be at negligible level to dishearten development of microorganisms, yeast or parasites amid capacity. Organizations of these
phytoconstituents rely on nature of medication dissolvable utilized. It likewise gives evidence whether unrefined medication is depleted or not.

Unrefined powder/or rough medications removed in distinctive solvents are tried for different phytoconstituents show in them by stard methods. They are for most part tried for vicinity of alkaloids, flavonoids, tannins, phenols, cardiovascular glycosides, triterpenes, and steroids saponin.

Little amount of dry plant powder is set on oil free clean minuscule slide 1-2 drops of newly arranged reagent arrangement is included, blended by delicate tilting slide sit tight for couple of minutes. Ultra violet light makes fluorescence in different standard things which don’t unmistakably fluoresce in sunshine. In event that substance themselves are not fluorescent, they might routinely be changed over into fluorescent helpers or disintegrating things by applying unmistakable reagents. In like manner grungy meds are significant part of time diagrammed subjectively therefore it is urgent parameter for pharmacognostic examination of offensive drugs. In like way procedure of stardization can be master by stepwise pharmacognostic studies as imparted as of now. These studies help in ID affirmation of plant material. Such data can go about as reference data for right perceiving confirmation of specific plant in addition will be critical in making monograph of plant. Further, it will go about as contraption to perceive adulterants substituent will help in dealing with quality, reproducibility common sense of essential meds. These 55 plants fit in with 39 specific families every one of them is therapeutically fundamental huge package of them are normally utilized as bit of some structure. therapeutic bit of plant may be any bit of plant i.e. leaf, seed, stem, stem bark, root, root bark, blossom, rhizome, peel or regular thing skin, tuber, and so forth.

Plants are going about as wellspring of fuel, craftwork material, building materials, colors, and food supplements most essential prescription for individuals, everywhere throughout world. Utilization of herbs as medicaments is in view of wide range of mixes that can be used to treat chronic sicknesses as well as infectious illnesses. Noteworthy data of how-to use eplantse against diverse afflictions may be anticipated that would have accumulated in surroundings where use of plants are still of extraordinary importance. Medical significance of plants is result of few chemical substances or group of intensifies that apply definite physiological impact in human body. These chemical
mixes are known as optional metabolites. Learning about synthetic constituents does help in growing new helpful medications, as well as be valuable in finding new wellsprings of financial materials, for example, tannins, oils, gums, that are forerunners for amalgamation of numerous unpredictable concoction mixes.

Plants have been utilized by man from ancient times for calming enduring curing illnesses. Primitive individuals, when harmed in fight or when they had fall or cut, instinctually depended on materials accessible at hand for staunching stream of blood or alleviating of torment by trial and error. They learnt that certain plants were more successful than others for these reasons. Man has additionally increased such information from his perception of fowls animals which utilize plants for curing their afflictions. Indeed, even today, we find that residential canine feline when experience ill effects of heartburn or different illnesses, raced to field, bite few grasses or herbs get cured. People medicines of considerable number of nations of world possess large amounts of restorative plants tribal individuals wherever they exist, depend mainly on home grown pharmaceutical even today. Today concoction pharmaceutical examinations have included lot of status to utilization of restorative plants by uncovering vicinity of dynamic standards their activities on human creature frameworks. All these have contributed towards their acknowledgement in present day prescription their incorporation in pharmacopeias of cultivated countries.

Indigenous frameworks of medication rehearsed in India are construct predominantly in light of utilization of plants. Charaka Samhita (1000 BC 100 AD) records utilization of 2000 vegetable cures. Antiquated solution was not singularly taking into account observation this is obvious from way that some therapeutic plants which were utilized as part of old times still have their place in present day treatment. Consequently, for instance, "Ephedra" plant utilized as part of China 4000 years back, is still specified in current pharmacopeias as wellspring of imperative medication, ephedrine. Plant Sarpagha (Rauwolfia serpentina) which was surely understood in India as solution for madness has now demonstrated that one of its constituents, reserpine, is miracle medicate today for curing mental diseases. Quinine, another critical against malarial medication of advanced prescription, was gotten from cinchona tree.
Medications started to be since early time to evacuate agony of infections and to cure them. Medications utilized as part of drug today are either acquired from nature or are of engineered source. Hence, story and historical backdrop of medications are as old as humankind.

Natural Medicine is characterized as branch of science in which plant based definitions are utilized to vindicate illnesses. It is otherwise called plant drug or phytomedicine. Of late phytotherapy has been presented as more exact equivalent word of home grown or organic pharmaceutical. In mid twentieth century natural pharmaceutical was superior medicinal services framework as anti-infection agents or analgesics were not up 'til now found. With development of allopathic arrangement of solution, natural medication continuously lost its prominence among individuals, which is in view of quick helpful activities of engineered medications.

Come back to Nature. As of late there has been parallel in and out pattern from engineered to natural prescription. Therapeutic plants have been referred to for thousand years as they are exceptionally rich wellspring of restorative specialists for counteractive action of maladies and infirmities. Quest for interminable wellbeing and life span and for solutions for assuage torment and inconvenience drove early man to investigate his quick normal surroundings and prompted utilization of numerous plants, creature items, minerals and so forth and improvement of assortment of remedial specialists.

Plants have been utilized as meds all through history. Investigations of animals demonstrate. Act of home grown medication is amazingly settled and reported in Asia. Accordingly, vast majority of restorative plants that have worldwide acknowledgment originate that of from India and Chaina. In U.S.A. and Europe, utilization of natural pharmaceutical is expanding quickly, particularly for remedying irregular characteristics brought about by current Fast sustenance eating methodologies and ways of life. Presently restorative plant items have been taken by numerous individuals consistently, to keep up great wellbeing as much as to treat ailments. World is increasing expanding consideration towards significance of restorative plants and customary wellbeing frameworks in taking care of health awareness issues. As from virtual elimination of interest, exploration on plants of restorative significance is becoming amazingly,
frequently to insult of normal living spaces and mother populaces in nations of cause. As indispensable piece of their way of life large portion of creating nations have received customary restorative practice.

Present examination work recommends that Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus extricate stacked gel detailing holds colossal potential against skin inflammation and can end up being sheltered and solid solution for treating this dermatological issue. However intricate convention for clinical trials is should have been outlined and actualized to check counter skin break out action on human volunteers. So we can recommend further examination and in vivo studies gel diffusion will help in building up this plan as promoted as marketed product
1.2 CONCLUSION

Piper Nigrum Fruit loss it's weight by 0.62 % w/w after LOD study. It shows total ash value, acid soluble ash value and water soluble ash value at about 18 % w/w, 13 % w/w and 14 % w/w respectively. It contain 14.3 % w/w alcohol, 15.34 % w/w water, 2.5 % w/w chloroform and 1.7 % w/w pet-water. Pterocarpus santalinus stem bark loss it’s weight by 0.62 % w/w after LOD study. It shows total ash value, acid soluble ash value and water soluble ash value at about 6.67 % w/w, 4.22 % w/w and 5.17 % w/w respectively. It contain 12.20 % w/w alcohol, 16.47 % w/w water, 5.42 % w/w chloroform and 3.20 % w/w pet-water.

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✓ Cultures of Opuntia ficus-indica, Piper nigrum and Pterocarpus santalinus concentrates were institutionalized by spectroscopic strategy utilizing standard and subjected for determination of MIC utilizing standard convention.

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