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REVIEW OF SUSTAINED RELEASE SYSTEM

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AB-V1-1

Novel Drug Delivery System is used to present the drug to the specified site of our body. Before the introduction of Novel Drug Delivery Systems, Conventional formulations were used to deliver the drug into our body. Novel Drug Delivery System is therapeutically effective. It involves advanced techniques and formulation of new dosage forms. Sustained action of the drug is one of the drug delivery systems which prolongs the action of drug at the body site over a extended period of time. In sustained release of the drug, the concentration of blood level should be maintained at a constant level. Sustained action can be achieved by using polymers, coatings, matrixem beddings. Sustained release dosage form should be formulated with physical considerations such as pH dependent solubility, drugs stability, partition coefficient and biological considerations such as absorption, distribution, metabolism and duration of action. Sustained release bypasses the pre-systemic metabolism. Drugs which are liable to Gastro-Intestinal Tract can be made into sustained action. Duration of action in sustained release can be increased and liver metabolism in the body can be decreased. Sustained action enhances the patient compliance with medication. For coatings, cellulose, keratin, fats, mixture of bees wax, carnuba wax with glyceryl monostearate. In matrix embedding, too much grinding should be avoided. Because this may uncover or damage the coatings. Medicaments with low solubilities can be used to sustain the action.

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PARTICLE SIZE REDUCTION

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AB-V1-2

Particle size reduction is a technique which improves solubility of a given drug by improving surface area. This size reduction may be achieved by two types of process like Precipitation process and Mechanical process. In precipitation process solute is dissolved in approximate solvent. In Mechanical process different equipments are used like hammer mill, roller mill rotary cutter mill, and ball mill. Rotary cutter mill: they are employed for preliminary size reduction of a given material. Rotary cutter mill are used in wide range due to its easy adaptation. Roller mills: It works either in opposing pairs or against flat plats to crush or grind a given material. Hammer mill: It can grind pulverize and crush this used in wide range due to proper crushing. Ball mill: It works on the bases of grinding and blending materials paints ceramics and selective bases sintering, mineral dressing processes pyro techniques. Fluid energy mill: It is used for pulverization and for fine grinding and to control particlesize. They are used when products are used from contamination. Application: fine power due to their higher surface area how rapid rate of dissolution and thus increases the rate of absorption of blood. Increases the chemical rate of reaction improves mixing and minimizes segregation. Absorption capacity increases.

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AN OVERVIEW OF NANOTECHNOLOGYDEPARTMENT OF PHARMACEUTICS

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AB-V1-3

Nano particles have been used in vivo to protect the active moiety in the systemic circulation prevent access of the drug to other sites and focused on the targeted sites and to deliver the drug at a controlled and sustained rate to the site of action.Nano drug delivery systems mainly includes lipids, nanoemulsion or polymeric nanoparticles and liposome. Nanoparticles improve the therapeutic effect of the drug and minimize the side effect. Nano particles target the tumor cells, reduce the toxicity and enhance the uptake of anti-tumor agents. Nano particles are prepared as nanocapsules and nanospheres. They can be administered by nasal, parental, oral and ocular routes. They are applicable in diagnostics, imaging of abnormal cells and early detection of diseases. Nanoparticles are injected and targeted to tumor cells and exposed to heat therapy and cells recover. Nanoparticles improves the stability and therapeuties index and reduce toxic effects. But some minute side effects such as limited drug loading, toxic metabolites may form and physical handling of nanoparticles is difficult in liquid & dry forms. Nano particles are with size range between 10-1000 nm .In cancer, the tumours are diagnosed which are targeted by nanogold particles using injection, it homing on the tumour .while the laser exposure, it will become recovery. Nanoparticles formulation increases oral bioavailability of poorly soluble drugs. So, nanoparticles are widely used in drug delivery system because of faster absorption.

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REVIEW ON HARM FULL EFFECT OF COSMETIC USAGE.

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AB-V1-4

Now a day the demand for cosmetics from young to old people in this trending world is increased. And it created awareness regarding the safety measures also. The main objective of this paper is "hazardous chemicals that persist in cosmetics causes health risk in humans", the main chemical that cause health risks are Tio2,Phtalates,parabens,1,4 dioxane, triclosan, heavy metals like mercury and lead, petrolatum, PABA, BHT, Formaldehyde, toluene, SLS etc...These Hazardous chemicals are present in the cosmetics and skin care products like sunscreens, powders, mascara, shampoos, nail polishes, lipsticks,skin whitening creams, shaving creams, deodorants, perfumes, tooth pastes and in some baby care products also. The chemicals present in the cosmetics listed formerly causes health risks such as nerve disorders, cancers like breast cancer, bladder cancer, skin cancer etc., reproductive illness, organ system damage, hormonal disruption, developmental toxicity, future infertility, oxidative stress, allergies, irritation, sensitization, bioaccumulation in environment,etc.., To ensure the toxicity in the cosmetics, many nationstried to prove them by testing on animals regarding the health risk. And these proofs helped the countries to ban the above listed chemicals in the formulation of cosmetics. This paper suggests to create more awareness among student and women to take right decision in choosing cosmetic especially in pregnant times. SO, go along with nature the nature will protect you at any cost.

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REVIEW OF PARTICLE SIZE REDUCTION (PSR) USING MILLING EQUIPMENTS.

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AB-V1-5

This review highlights size reduction of particles for improving solubility, dissolution and bio-availability of drugs. There are many types of size reduction machinery available for particle size reduction such as ball mill, colloidal mill, fluid energy mill& hammer mill, etc. Size reduction is one of the most extensively used vital unit operation. PSR is technique to produce micro particle from conventional solid form.PSR is also termed as comminution or diminution or pulverization. Particle size reduction is defined as the process of converting large solid unit masses into small unit masses, coarse or fine particles. The science and technology of particle size is called micromeritics. Milling is defined as particle size reduced by mechanical means. There are two major categories in size reduction which is based on whether the material is a solid or liquid. If the material is solid the process will be grinding and cutting. If it is liquid the process will be emulsification or atomization. The mechanism involved to reduce the size of particle is classified as cutting, compression, impact &attrition. The important reasons for particle size reduction are to increase content uniformity, therapeutic effectiveness of drugs. The advancements now available in particle size reduction are Micron technologies, Gran-u-Lizer technology, Jet-o-Mizer PSR& Micro fluidizer PSR. Thus psr improves the bio-availability of certain drugs such as GRISEOFULVIN, SPIRANLACTONE, DIGOXIN, CILOSTAZOL, IBUPROFEN, etc.

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A VIEW ON NATURAL REMEDY FOR CHEMICAL COSMETICS

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AB-V1-6

Accordingto drug and cosmetics act, 1940 and 1945 regulates the cosmetics.Cosmetics are products which are those applied to the body or face to improve appearance. They used to cleanse, beautify, promote attractiveness and also alter the appearance of the body. Though the act includes some chemicals but most of the cosmetics products contain hazardous chemicals like SLS, talcum, parabens, coal tar dye, triethanolamine and some heavy metals like lead, arsenic, nickel etc.., On continuous day to day use of these cosmetics can lead to severe damage in the body which may includes cancer, fertility and developmental disorders, hair loss, lung damage, skin disease, allergies and contact dermatitis. The chemicals and metals can enter in to the body by inhalation of perfumes, deodorants, nail polish, scented products etc.., and by absorption through penetration of harmful chemicals from body creams, moisturizers, cleansers, eye shadows etc.., and also by ingestion of chemicals and metals in lipsticks, lip balm, lip gloss through the mouth. The cosmetics were to be worn to overcome the smudging and pollution conditions, it can get messy and create some skin related problem and that is called side effect. Therefore to avoid these problems the natural remedy were taken without the use any chemicals and natural remedy were done with the use of some of them like coconut oil, aloe Vera, baking soda, oatmeal, apple cider vinegar, olive oil, honey, green tea, rose water. On using these we can overcome the side effects of the cosmetics. The natural solution is the one and only the best way to overcome the hazardous effects produced by the cosmetics.

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COMPARISON STUDY ON OPTIMIZING SOLUBILITY OF POORLY SOLUBLE DRUG BY SPHERICAL CRYSTALLIZATION TECHNIQUE

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AB-V1-7

Tabletis the most popular solid dosage form. The manufacturing of the tablet is more convenient and easy process.it is administration to thepatient because of its temperature proof, lowprocess and its systemic effect. Tabletting process: dry granulation, wet granulation, direct compression. In wet granulation and dry granulation consist of many steps and long duration. This problem is over come by direct compression. In direct compression is one of the best economical convenient methods for manufacturing tablets because it minimizes the processing steps. This technique depends on the flowbility, compressibility, bulk density but it does not give flowbility, compressibility for all drugs like NSAID. So this problem is overcome by spherical crystallization technique. It transfer the size of particle from crystal into spherical it produce good affinity between the drug and solvent. This state possible by influence of agitation between the good solvent poor solvent drug solution and bridging liquid this agitation help to produce agglomeration. Agglomeration transfers the crystal from to spherical form. General methods are spherical agglomeration, quasi-emulsion technique.Spherical agglomeration technique: The excess of diluents added to the formulation can be minimizing by this technique but affinity between drug particle and solvent is improper in this technique. This can be overcome by improving affinity between drug and solvent in quasi-emulsion technique, In Quasi-emulsion technique the affinity of drug and good solvent is improved by good solvent poor solvent interaction. This state is possible by influence of agitation between the crystal, good solvent, and drug solution. This method overcomes spherical agglomeration process by improving affinity between the particles.

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OVER VIEW ON IONTOPHORESIS

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AB-V1-8

Iontophoresis is a promising technique for delivery of ionized drugs across the skin. Topical delivery of therapeutic agents by iontophoresis is attractive because the large surface area of skin provides for easy access. It is a non-invasive technique. The review focuses on approaches, models and factors affecting iontophoresis. It uses the low voltage electric current for the delivery of drugs.It is based on the mechanism of current flow, like charges repels each other while unlike get attracted. The positive charged ions in the solution are repelled from positive charged electrode which is positioned on the tissue on which the drug molecules has to be delivered, similar way for the negative ions at negative electrode. The direct current is used for the transfer of the ions from the drug electrode. The external energy is used to increase the rate of drug delivery. Neutral molecule moves by connective flow due to electro osmotic and osmotic force by the application of current. During Iontophoresis, electro migration of ion occurs which causes solvent motion and this motion helps in the movement of neutral as well as charged ions. Iontophoretic devices have gained importance worldwide. These are used to enhance the bioavailability and better absorption and fast delivery of drugs.In this review various uses and applications of the iontophoresis technique are discussed.Drugs used for iontophoresis may include lidocaine hydrochloride (positive ion forming drug) and dexamethasone sodium phosphate (negative ion forming drug). Possible advantages include greater convenience and less discomfort compared to injection, less variation in absorption, and fewer side effects compared to oral administration of medication.

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KIDNEY DISORDERS, DIALYSIS AND ITS PHARMACOLOGICAL INTERFERENCE

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AB-V1-9

Kidney is one of the vital organs of human body. It is the chief excretory organ. It takes part in all vital functions of human body. Kidney is not only an excretory organ; it is also involved in production of erythrocytes. It excretes all metabolic waste from the body and maintains homeostasis or equilibrium. The functional unit of kidney is nephron. There are totally one million nephrons in each kidney. It's primary function is to excrete metabolic wastes. Any impairment in these functions may give rise to disorders such as Nephritis, Nephrotic syndrome, Nephropathy, Nutcracker syndrome, Renal failure, Diabetes mellitus. These need special attention because they are chronic kidney diseases (CKD). Nephritis is an autoimmune disorder. Nephrotic syndrome arises due to the condition protenuria, hyperlipidimeia. Nephrophathy results in deposition antibody called IGA in the mesengial artery of kidney. Nutcracker syndrome occurs due to impairment of left renal vein. Renal failure occurs due to damage of both the kidney. Diabetes mellitus results in malfunctioning of insulin secretion. A very special attention to those disorders and its clinical manifestations are need of the hour. It is very much dragging general attention because people with kidney diseases more oftenly reporting all through the world. A patient suffering from continual kidney ailment shows of extended cardiovascular ailment. The susceptibility towards cardiovascular risk of prone patients is high since kidney is indirectly involved in formation of RBC. In cardiovascular system important components such as vulnerable myocardium, vulnerable vessel and vulnerable blood increases the morbidity and mortality in CKD suffers. The treatment to those diseases has not given good results. Performing hemodialysis and peritoneal dialysis is cost effective, but we can perform dialysis at home. This is one time investment. It is a simple and economic solution to those kidney disorders in place of renal transplantation which has many complications and it is a hardcore process.

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REVIEW ON HYPO AND HYPER GLCEMIC ALARM DEVICES AND ALGORITHMS
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AB-V1-10

Hypoglycemia is defined as low blood sugar (glucose) level hyperglycemia is defined as too high blood sugar (glucose) level. As you regulate your blood glucose and keep your diabetes record, they two problem that you need to be recognized and treat (with your personal physician's advise) hypoglycemia and hyperglycemia. Hypoglycemia is an insulin reaction can happen if you are taking insulin or oral medication. This reaction happens when there is not enough glucose in your blood. Hyperglycemia is the condition found in individuals with diabetes either insulin-dependent or non-insulin dependent. The causes of hypoglycemia are too much insulin; too much excises; not enough food. The hyperglycemia usually occurs slowly or several hours or days it may be caused by not taking enough insulin; illness (such as cold or flu) infection; stress; certain medication. Symptoms of hypoglycemia sweating; weakness; trembling; fast heart beat; inability to think straight; irritability; hunger; headache; sleepiness. Symptoms of hyperglycemia include blood glucose over 240mg /dl; more urine outputthen usual; increased thirstdry skinand mouth;decreased appetite,nausea or vomiting;fatigue,drowsiness or no energy. Each conditions canbe measured the level of blood glucose. Hypoglycemia can lead to confusion, Coma or convulsion. Ifyou hypoglycaemia reactions,you should treat it immediately by eating some forms of carbohydrates (sugar). Sometime like glucose tablets or sugar cubes with you at all times and take at first sign of a reaction. Your body needs fast acting sugar at that time. In hypo and hyper glycemic alarm some devices are used, they are skin conductance and temperature, electroencephalography, electrocardiography, diabetic alert dogs and continuous glucose monitor are used widely.

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PHARMACOLOGICAL ACTION OF TULASI

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AB-V1-11

Ocimum sanctum commonly known as the Holy Basil in English or Tulsi.The leaves, seeds and root of this plant have been used in Ayurvedic medicine. in the various Pharmacological activities such as antibacterial, antiviral,antifungal, anti protozoal,anti malarial,anti diarrhoeal,analgesic,antipyretic,anti inflammatory,anti allergic,anti hypertensive, cardio protective, Central nervous system (CNS) depressant memory enhancer,anti diabetic, anti asthmatic, Anti thyroidic, antioxidant,anti cancer,anti arthritic,adaptogenic/anti stress,anti cataract,anti leucodermal,and anticoagulant activities,Tulsi and some of its phytochemicals eugenol, rosmarinic acid, apigenin, myretenal, luteolin, β-sitosterol,and carnosic acid prevented chemical-induced skin, liver, oral, and lung cancers and to mediate these effects by increasing the antioxidant activity, altering the gene expressions, inducing apoptosis, and inhibiting angiogenesis and metastasis. The aqueous extract of Tulsi and its flavanoids, orintin, and vicenin are shown to protect mice against γ-radiation-induced sickness and mortality and to selectively protect the normal tissues against the tumoricidal effects of radiation. The other important phytochemicals like eugenol, rosmarinic acid, apigenin, and carnosic acid are also shown to prevent radiation-induced DNA damage. This review summarizes the results related to the chemopreventive and radioprotective properties of Tulsi and also emphasizes aspects that warrant future research to establish its activity and utility in cancer prevention and treatment. The plant increased the physical, endurance and prevented stress-induced ulcers.

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REVIEW OF "ANTI-CANCER DRUG OBTAINED FROM PLANT PRODUCTS"

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AB-V1-12

This review describes about ANTI-NEOPLASTIC AGENTS AND IT'S MECHANISM. Cancer is nothing but an abnormal growth of cells. The agents which are used to prevent this abnormal growth of cells are 'ANTI-CANCER DRUGS OR ANTI-NEOPLASTIC AGENTS'. They are classified as alkylating agents, antimetabolites, plant products, antibiotics, hormones, immunotherapy and miscellaneous.This review highlights the drugs that have been obtained from the plant products. Vinca alkaloid, Podophyllotoxins, Camptothecins and Taxanes are explained here and the drugs that are extracted from the above classification respectively are also explained. Vinca plays a very significant role in the anti-neoplastic agents. The chemical constituents extracted from vinca are Vincristine, Vinblastine, Ajmalicin, Vindesine, Vinorelbine. Vincristine and vinblastine slightly differ in their structureand helpful in treating Hodgin'sdisease(vinblastine) and childhood leukemia(vincristine). Vinorelbin has less toxin side effect compare to other chemicals. The drug's mode of action is to prevent the assembly of tublin dimers into microtubules. Thus vinca used for different purpose in different countries. Eg. In china, it is used as astringent, diuretic and cough remedy. Similarly in podophyllotoxin the chemical constituents are Etoposide, Teniposide. They prevent cell proliferation by inhibiting topoisomerase-II. In Taxanes,chemical constituents are Toxal, Paclitaxal and Docetaxal. They prevent proliferation of cells by preventing microtubule disassembly into tubulin monomers. Likewise,Camptothecin's chemical constituents Topotecan and Irinotecan prevents cell proliferation by inhibiting topoisomerase-I. Finally I conclude that these plant products are less toxic while other chemicals are greater. Hence plant products are most preferred.

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EVALUATION OFANTIHELMINTIC ACTIVITIES OF THE AQUEOUS EXTRACT OF MEDICINAL PLANT ERYTHRINAINDICA LIN

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AB-V1-13

The aqueous extract of *Erythrinaindica* (250 and 500 mg / kg body weight) orally was studied for anthelmintic activity in animal models. The anthelmintic activity was studied in Earth worms (Perionyx excavates) and Goat intestinal worms (Amplostomacaninum) and it showed significant anthelmintic activy. Ethanol, chloroform and ethyl acetate extracts of leaves of Erythrinaindica (EI) were studied for its anthelmintic property against PheritimaPosthuma. The activity was assessed by the determination of time of paralysis and time of death of earth worms. Piperazine citrate was included as standard. All three extracts exhibited good anthelmintic activity. Erythrina indica variegata also called Erythrinaindica is a thorny deciduous tree growing 60 feet tall. A wide range of chemical compounds have been isolated from it, mainly alkaloids, flavonoids and triterpenoids. It has also been investigated for various pharmacological actions. The important diagnostic features of the powder include paracytic stomata, spiral xylem vessels, calcium oxalate crystal prisms and lignified pericyclic fibres. Phytochemical analysis showed the presence of important classes of phytoconstituents like alkaloid, flavonoids, sterols, triterpenoids and carbohydrates. Such a detailed would provide a direction for further research, which would include standardization of the leaf material used in formulations and isolation of phytoconstituents.

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REVIEW ON ARTIFICAL PANCREAS DEVICE SYSTEM

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AB-V1-14

This review highlights the usage of artificial pancreas device for diagnose and treatment of insulin insufficient.Artificial pancreas device system (APDS) is a device, which closely resembles as healthy pancreas like GLUCOSE LEVEL MAINTAINING FUNCTION. *APDS* specially designed for diabetes disorder, especially for TYPE 1 DIABETES.Type 1 diabetes patients unable to secrete the insulin from the β cells of pancreas results in high glucose level in blood (HYPERGLYCEMIA). In this case APDS should deliver the insulin from insulin infusion pump, which reduce the high blood glucose level in blood (HYPERGLYCEMIA) and minimize the incidence of low blood glucose level (HYPOGLYCEMIA). It is bi hormonal system which deliver both insulin and glucagon automatically depends upon body needed. The U.S FDA approvedan artificial pancreas device system in 2016.APDS used successfully 13.5 millions of people in U.S. for type 1 diabetes.This device monitor the glucose level for every 2 minutes in the body and also control the delivery of insulin at intervals of every 5 minutes automatically .It supply minimum 8 units of insulin per day and it has refilled after a week. This device consist of four parts: CGM sensor,CGM receiver, insulin pump, control algorithm device. When compared to other treatment it does not produce edema,pain, liver or kidney damage. Nowadays to invert or to modify special designed of genesis artificial pancreas device system is introduced.

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REVIEW ARTICLE ON NEEDLESS VACCINE TECHNOLOGY

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AB-V1-15

Needless vaccine technology are innovative ways to introduced a variety of medicines in patients without piercing the skin with traditional needle A new generation of needless vaccine delivery device (jet injectors) has been developed in a effort to decrease the risk of needle stick injuries to healthcare personal and proper reuse of syringes and needles. E.g. liquid jet injectors employ a high speed jet to puncture the skin and deliver drugs without the use of needle; they have been used to deliver a number of macromolecules including vaccines and insulin as well as small molecules such as anesthetics and antibiotics. Needless vaccine gives very effective injections for a wide range of drug and bioequivalent to syringe and needle result less pain and strongly preferred by patients. This device can be classified based on their working, type of load, mechanism of drug delivery and site ofdelivery. To administer a stable, safe and effective dose through this technology. Thesterility, shelf life and viscosity of drug are the main components which should be take care of. Needless vaccine cane be manufactured in a variety of ways, however the widely employed procedure to manufactured by molding technique. There are many variety of this technology which are being marketed such as Bio-jet,zeta jet TM, vita jet 3 and so on. Nowadays they are an increasingly raising technology that promises the administration medicine effect with reduction of pain. An over view use of this device for delivery of vaccines, insulin and growth hormone is presented.

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ELECTRONIC ASPIRIN

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AB-V1-16

The electronic aspirin is an almond sized device which is implanted inside the head behind the eyes and nasal cavity. One end of the device is attached to the SPG bundle outside of the brain by a tail. When the patient suffers from severe headache or facial pain, they have to holds a hand-held remote nearest to the device which is implanted on the cheeks. This remote sends the radio signals to the implant, causing it to turn on and send signals to the surrounding nerves, which stops the spreading and intensity of the pain by blocking the neurotransmitters which causes pain. The permanently embedded implant has a pointed tip which connects with the SPG bundle of nerves. The patient then controls his or her own stimulation treatment by turning on the remote controller and placing it on the cheek over the implanted ATI neurotransmitter. The patient who suffers from migraine, cluster headache and other chronic facial pain can use this device. The patient may experience immediate reduction in pain and some may get relief within 15 minutes. Some common symptoms include throat numbness, lowered blood pressure, nausea. Rare symptoms includes nasal bleeding, nasal infection. Most serious risks of using aspirin are stomach bleeding, ulcer, bleeding in the brain, kidney failure, certain types of strokes, liver damage in chronic alcohol users, ringing in the ears hearing loss and some allergic reactions like facial swelling and asthma attacks. Patients are advised to avoid drinking and eating during medication.

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PLANTS HAVING IMMUNOMODULATORY ACTIVITY

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AB-V1-17

Immunization is the process by which an individual's immune system becomes fortified against an immunogen. Immune systems that are improved by immunization are the T cells, B cells and the antibodies B cells produce. Immune system is a host defense system present within an organism. Immune system detects the agent known as pathogens, from viruses to parasitic worms. Disorders of the immune system can result in autoimmune diseases, inflammatory diseases and cancer.Immunodeficiency occurs when the system is less active than normal. Immunomodulator (IMs) are also known as "immunosuppressant".Immunomodulator are naturally present in the body and certain are available in pharmacological preparations. Many botanical species have reported the immunomodulatory activity. Modulation of immune system denotes any change in immune response. The essence of Ayurvedic medicines, Indian medicinal plants manifest miraculous effects that acts against various disease and disorders among humans called as "elixirs of life". The chemicals are in the form of alkaloids, flavinoids, terpenoids, polysaccharides, lactones and glycosides products are responsible to immunomodulator activity. Herbal immunomodulator is a substance that stimulates or suppresses or modifies the immune system including both innate and adaptive immune response. "Rasayana" have been claimed to possess immunomodulatory activity. Some of these plants are Curcuma long, Allium sativum, Ocimum sanctum, Panax ginseng, Piper longum. Curcuma longa is a rhizomatous herbaceous perennial plant of the ginger family.Alliumsativum is the species in the onion genus.Ginseng is the species belonging to the genus Panax of the family Araliaceae. Piper longum is the species belonging to the family Piperaceae. This review comprises a summary about immunomodulator and herbal plants having immunomodulator properties, chemical constituents and its uses.

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A REVIEW ON TARGETED THERAPHY FOR CERVICAL CANCER

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AB-V1-18

As the fourth most frequently diagnosed cancer among women worldwide, cervical cancer is one of the major cancer types for which new targeted therapies are being developed and tested in clinical trials. Human papilloma virus (HPV) one of the major cause of cervical cancer. This prevalent virus is also linked to other anal, genital, head and neck cancers. The effectiveness of infection was tested by Pap testing and DNA testing. Thankfully targeted therapy has been approved for cervical cancer patients and has seen promising results in early stage clinical trials. Treatment of cervical cancer over last ten years has involved advancement in development of targets at molecular level. This review on targeted therapy includes both gene therapy and immune therapy. Treatment of cervical cancer through gene therapy includes systematical administration of nano vectors that is gene loaded PEG-PLA and thus gene loaded nano particles targets the HELA human cervical cancer cells. Immune therapy includes manipulating gene to favors the activation of immune response which includes the alteration of immune system focused on the micro environment by the use of immunomodulators such as cytokines.

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A REVIEW OF BREAK THROUGH THERAPY FOR ACUTE LYMPHOCYTIC LEUKEMIA

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AB-V1-19

Break through therapy expedites drug development that was created by congress under section 902 of 9 July 2012 food and drug administration safety and innovation act. Break through therapy is used to treat serious or life threatening diseases. It's aFDA (food and drug administration) approved designation. Gleevac used to treat acute lymphocytic leukemia. It is used against CD19 and tyrosine kinase. Tyrosine kinase is associated with increased proliferation and decreased apoptosis, over production of myeloid cells. Inotuzumabozagamicin is used to treat relapsed and B cell refractory acute lymphocytic leukemia. Inotuzumabozagamicin is used against CD22.Car t therapy use patients own immune cells called T-CELL to fight against the cancer cells on the tumor surface.Its a type of immune therapy.The T cell are genetically engineered called CAR to fight against cancer cells.

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LIFE SAVING RASAM

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AB-V1-20

In this view that food can have an expanded role that goes well beyond providing a source of nutrients truly applies to traditional functional foods. Rasam a soup of spices which helps to prevent and also cure DIABETIC, CANCER, HEART diseases. The traditional functional food of rasam can be prepared as a base with the addition of tomato(anti-skin cancer), turmeric(anti-inflammatory), chilli pepper(antioxidant), asafoetida (anti-microbial), garlic(anti-septic), mustard (hypoglycemic effect), coriander leaves(improve digestion), curry leaves(cardio protective), ginger(treat throat infection) and black pepper(gastro protective). The systematic consumption of rasam is an excellent preventive of many diseases. This view is an attempt to compile the literatures on rasam, it contains dietryfiber, vitamins, minerals, amino acids and some proteins. The turmeric contains curcuminoids, tomato contains carotenes,asafetida contains resin and volatile oil, coriander leaves contains nitrogen and minerals, curry leaves contains vitamin C and protein, black mustard contains volatile oil and fiber, garlic contains Sulphur containing compounds, chilli pepper contains capsaicin.

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THE USE OF ACETAMINOPHEN AND RISK OF WHEEZING AND ASTHMA IN CHILDREN

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AB-V1-21

Paracetamol use has been associated with increased risk of asthma in children and adult, exposure to paracetamol at pregnancy which cause asthma and wheezing in early childhood. The main mechanism behind in acetaminophen metabolism may supply glutathione in the developing lung in children, leading to oxidative damage and inflammation in lung. The main mechanism involved glutathione it is a main oxidant which found in lung tissue. Acetaminophen has shown to lower seram glutathione level in healthy person. The glutathione pathway the decrease in the release of TH1 cytokines, which would leads to predominance of TH2 cytokines, produce modular effect on the activity of myeloperoxidase. Paracetomal lack the inhibition of enzyme cycloxygenase. This is the enzyme which is involved in the synthesis of prostaglandins playing a important role in the inflammation in case of asthma and wheezing in children. Thus paracetamol causes oxidative stress in the pulmonary airways contributing asthma by damaging airway epithelium, driving the inflammatory process and promoting bronchial hyper responsiveness (BHR) although antioxidant such as glutathione (GSH) offers some defense against reactive oxygen species, but it could be insufficient if dietary antioxidant intake is inadequate. The common use of paracetamol as the analgesic and antipyretic of choice during pregnancy.Because the use of acetaminophen may be the reason for infectious or inflammatory disorders in very young children.There are some medications for the treatment of asthma in children. Quick relief medications such as Beta2-agonist are used. Long term medications are help to relax the airways and allow more air to flow in lungs. The drugs are corticosteroids and long acting Beta2-agonist is used. The paracetamol consumption is associated with a significant increase in asthma symptoms. The effect is greater the more often the drug is taken.

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FORMULATION AND EVALUATION OF MESALAMINE USP DELAYED RELEASE TABLETS USING TWO DIFFERENT COATING POLYMERS

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AB-V1-22

Intestinal Bowel Disease is an intestinal disorder characterized by abdominal pain, bleeding, diarrhoea and weight loss. Several IBD treatments are available including 5-amino salicylic acid derivatives, antibiotics, corticosteroids, immune-modulators, biological response modulators.About 1 million Americans are diagnosed with ulcerative colitis and half with Crohn's disease. Although the pathogenesis of IBD related inflammation occurs when a genetically or environmentally compromised individual experiences on abnormal immune response to normal intestinal flora. The 5-ASA derivatives such as mesalamine USP delayed release tablets using two different coating polymers can be used for the drug therapy of ulcerative colitis. The drug has to reach the site of action without being affected by various pH ranges. The GIT has varied pH ranges from 6.6-7.5. The mesalamine has been formulated into granules by wet granulation method and compressed into compact tablets during which in-process quality control tests such as Friability test, Hardness test, Weight variation Analysis, disintegration tests were carried out. After this process, coating was carried out by using different polymers such as HPMC K_4M, HPMC E_5. After the coating process, the tablets were subjected to dissolution studies. HPLC analysis of drug concentration and drug release at the site of colon region were studied.

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EVALUATION OF VINCA ALKALOIDS DRUGS OBTAINED FROM THE MADAGASCAR PERIWINKLE PLANT

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AB-V1-23

Vinca alkaloids are a subset of drugs obtained from the Madagascar periwinkle plant. They are naturally extracted from the pink, periwinkle plant, Catharanthusroseus G. Don and have a hypoglycemic as well as cyto toxic effect. They have been used to treat diabetes, high blood pressure and have been used as disinfectants. The Vinca alkaloids are also important for being cancer fighters. There are four major Vinca alkaloids in clinical use. Vinblastine (VBL), Vinorelbine (VRL), Vincristine (VCR), and Vindesine (VDS). VCR VBL and VRL have been approved for use in the united states.Vinflunine is also new synthetic Vinca alkaloids, which has been approved in Europe for the treatment of second-line transitional cell carcinoma of the urothelium is being developed for other malignancies. Vinca alkaloids are the second-most-used class of cancer drug and will stay among the original cancer therapies. Different researches and studies for new Vinca alkaloid applications will be carried out in this regard.

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A REVIEW ON AEGLE MARMELOS: POTENTIAL MEDICINAL TREE

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AB-V1-24

With the ever increasing interest today's population towards natural products AegleMarmelos (L) corr emerged out to be one of the most eyes catching plant thatNature has endowed us with, bearing multiple medical properties prolonging to family Rutaceae. This plant has tremendous uses listed in Ayurvedic and siddha systems of Medicine. Almost every part of this plant bears one or more of the medicationProperties utilize through preparation of different formulation either alone or inCombination with other herbal plants.

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PHARMACOGNOSTICAL AND PRILIMNARY PHYTOCHEMICAL ANALYSIS OF *Borassus flabellifer. L*

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AB-V1-25

The usage of plant has been increased in recent trends in order to have decrease side effects therefore active research has being done on the this plants. The plant *Borassus flabellifer* is traditionally used as food and medicine. The plant roots were studied for its pharmacognostical and Prilimnary phytochemical analysis. This would help in future for its identification, and standardization.

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ANTIDIABETIC ACTIVITY OF ETHANOLIC EXTRACT OF DIPTERACANTHUS PATULUS,NEES JACQ LEAFS AND LEAFLETS IN NORMAL AND ALLOXANINDUCED DIABETIC RATS.

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AB-V1-26

Dipteracanthuspatulus (jacq.) Nees belongs to family Acanthaceae is a large sizes plant distributed throughout India, Sri Lanka, and Nepal. The aim of the present study was to evaluate the anti-diabetic potential of ethanolic extract of Dipteracanthuspatulus (jacq.) Nees in normal and Alloxan induced diabetic rats. The preliminary phytochemical screening shows the presence of carbohydrate, glycosides, flavonoids, alkaloids, tannins, Saponin, triterpenoids, steroids and absence of fixed oil, proteins, mucilage and amino acids. Diabetes was induced in albino rats by administration Alloxan monohydrate (25mg/kg). The ethanolic extract of Dipteracanthuspatulus (jacq.) Nees leaflets at a dose of 100 and 200mg/kg of body weight was administrated at a single dose per day to diabetes induced rat. The rats for a period of 2 weeks. The effect of ethanolic extract of Dipteracanthuspatulus (jacq.) Nees leaflets on blood glucose, glycoside hemoglobin in level and histopathological study, pain sensitivity were measured in the diabetic rats. The blood glucose ($p<0.05$) and other parameters. The blood glucose was compared with the standard drug Glibenclamide (0.75g). From the above results, it is concluded that methanol extract of Dipteracanthuspatulus (jacq.) Nees leaflets possess significant anti-diabetic, anti-hyperlipidemia effects in the Alloxan induced diabetic rats.

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REVIEW ON DENGUE: PATHOPHYSIOLOGY, SYMPTOMS, PREVENTION AND TREATMENT

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AB-V1-27

To study about pathological conditions, prevention, treatment and statistical outbreaks of dengue. Dengue fever is a mosquito-borne tropical disease caused by dengue virus. It is also called as “break bone fever” or “dandy fever”. Symptoms begin 3-14 days after infection. This may include a high fever (104-105 F), headache, vomiting, muscle and joint pains, and skin rash. Recovery takes 2-7 days. This disease develops into the life-threatening hemorrhagic fever, resulting in bleeding, low levels of platelets and plasma leakage, shock syndrome, low blood pressure occurs. Dengue is spread by Aedes mosquito (Aegyptus type). A number of tests are available to confirm the diagnosis including detecting antibodies to the virus or its RNA.A novel vaccine for dengue has been approved and available in a number of countries. Prevention are by reducing mosquito habitat and limiting exposure to bites(by covering standing water and wearing clothes to cover body).Exact treatment of dengue is not identified, However it is treated by self-limitation, adequate hydration, pain control. Dengue fever is endemic in tropical and subtropical areas. The first clinical report was in 1789 by B.Rush. The dengue fever outbreak is estimated by WHO to cause about 50-100 million infections/year worldwide. The information regarding dengue was discussed and reported.

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FORMULATION AND EVALUATION OF TRAMADOL HCL TRANSDERMAL PATCHES BY USING SOLVENT CASTING METHOD

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AB-V1-28

Transdermal Drug Delivery System (TDDS) is a novel drug delivery system. It is easy to be used in new techniques and easy to deliver drug at site of action. It increases Bio-availability of drug, decreases adverse drug reaction and enhances patient compliance. The formulation of Transdermal drug delivery system which are highly lipophilic in nature as the skin can allow the lipophilic drugs even though having a dead tissue called stratum corneum which is rate limiting step in the drug release but it can be overcome by the usage of penetration enhancer in the formulation. Drugs having short half life best suited for Transdermal Drug Delivery System. Tramadol is a potent analgesic that is used to treat severe pain and also used in the treatment of osteoarthritis. The aim of this present study was to formulate and evaluate tramadol Hcl Transdermal Patches by using Solvent Casting Method.

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REVIEW ON THE PHARMACOLOGICAL ACTIVITY OF *EUPHORBIA HIRTA. (LINN)*

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AB-V1-29

The use of plant extract to cure diseases has been the traditional way used in many parts of the world. The synthetic drugs used now are more prone to cause side effects than curing the disease. Hence, the use of plant extract has now emerged due to their effective action against the disease without causing any side effects. The plant belongs to the family called Euphorbia is widely used in medicine for its wide medicinal properties. The plant Euphorbia hirta has properties like anti diabetic, burn wound healing activity, antimalarial activity, anti-inflammatory activity, antidiarrheal activity and anti fertility activity. This review contains the detailed information about all the properties of Euphorbia hirta.

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PHYTOCHEMICAL SCREENING, ANTIOXIDANT AND ANTIMICROBIAL ESTIMATION OF ETHANOLIC EXTRACT OF LEUCAS DIFFUSA

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AB-V1-30

The plants of the genus Leucashave been found to be useful in various diseases. Leucasdiffusa (LD) widely distributed throughout India as a weed in cultivated fields, wastelands & roadsides. The aerial parts of the plant were used for the purpose of evaluation.The plant material were extracted with solvents such as aqueous, ethanolic and chloroform extracts. The priliminary phytochemical screening of Leucas diffusa was done on all the extracts indcludes the ethanolic extract, aqueous extract and chloroform extract its phytochemical constituents was performed using generally accepted laboratory technique for qualitative determination. All the crude extracts were purified by appropriate solvents identified and characterized by standard methods. The phytochemicals screening using the ethanolic extract revealed the presence of the following phytochemicals such as flavonoids, tannins, glycosides, carbohydrates, steroids and terpenoids. The In-vitro antioxidant activity examination was performed by hydrogen peroxide scavenging method and it is compared with standard i.e., Ascorbic acid. Among that ethanolic extract shows an excellent efficiency compared to the other extracts. In antimicrobial study the inhibition of bacteria used in the study by the aqueous extract was also comparable to that of the standard Gentamycin. The Ethanolic extract was found to show remarkable inhibition against the bacteria used in the study when compared to other extracts, none of the extracts showed any antifungal activity. Thus concluding we have demonstrated the Ethanolic extract of aerial part of Leucasdiffusa extract and solvent fractions exhibiting considerable activity (dose dependent) when compared with reference standard. The present research work showed the validity and the clinical use of Ethanolic extract of Leucasdiffusa in the control of Antioxidant activity and studies determining the other activities could be done in future.

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THERAPEUTIC DRUG INDUCED OTOTOXICITY- AN OVERVIEW

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AB-V1-31

Ototoxicity is the property of being toxic to the ear. The effects of Ototoxicity can be reversible or temporary and irreversible or permanent .About 130 medications have been reported as being highly Ototoxic .Keeping this in view, this study is designed to review researches done on the drug induced Ototoxicity. There are many well-known Ototoxic drugs used in clinical situations, Tinnitus is the perception of noise or ringing in the ears. A common problem, tinnitus affects about 1 in 5 people. Tinnitus isn't a condition itself it's a symptom of an underlying condition, such as age-related hearing loss, ear injury or a circulatory system disorder. Despite the various risk of hearing loss leading to serious health conditions. Herbal medicines are quite active and may contain toxic compounds as they are dangerously adulterated by addition of synthetic pharmaceuticals, such as steroids. Both systemic and topically administered drugs can cause Ototoxicity. Systemically administered classes of drugs causing Ototoxicity are Aminoglycosides, Salicylates, NSAID's, loop diuretics, platinum compounds, Macrolides, Iron chelating agents and also some topically administered agents for Ototoxicity includes Disinfectants, Antifungal and antiseptics, Polymyxin, Chloramphenicol, Aminoglycoside. Various studies have been reported on various classes of Ototoxic drugs. Most of the research articles reveal the need of Ototoxicity monitoring and necessity to investigate the exact causes and mechanism of Ototoxicity in preventing complications. This review finding emphasizes the role of health care professionals to be aware about this and to therapeutically monitor this by various strategies in the society as they are the direct medium by which this complication could be controlled. Studies to determine the exact mechanism of the drug induced Ototoxicity have to be performed in future.

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FORMULATION AND EVALUATION OF SUSTAINED RELEASE MICROBEADS OF DILTIAZEM HYDROCHLORIDE

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AB-V1-32

Diltiazem hydrochlorideis a calcium channel blocker used in various cardiac diseases. The drug has poor bioavailability and short biological half life. Therefore,to ensure a controlled drug delivery for improvingpatient compliance, diltiazem hydrochloride was formulated as microbeads by ionotropic gelation technique using two biocompatible and biodegradablepolymers sodium alginate and starch. Calcium Chloride was used as a cross linking agent.Six formulations were made by altering the concentrations of polymer. The prepared beads were evaluated for SEM, Entrapment efficiency, LSC studies, particle size, moisture content, angle of repose, bulk density, tapped density, drug release studies, effect of sodium alginate and starch concentration. SEM photomicrographs of sustained release beads reveal that they were spherical and uniform.Beads showed good flow property. The entrapment efficiency was found to be in the range of 55 - 88%. The percentage moisture content was found to be in the range of 23 - 26%. As the polymer concentration increases, the swelling property also increases and the rate of release of drug was also sustained. Based on the entrapment efficiency, LSC studies and invitro release studies. The formulationF6(4 % sodium alginate with 3% starch) was found to be the best formulation. At the end of 8 hours the percentage of drug released from F6 formulation was 63.25 only.The release of the drug starts to occur during the period of the gel formation. The release rates were indirectly proportional to polymer concentration. The presence of starch along with the sodium alginate decreased the drug release.Stability studies were carried out and found that the beads were stable for a period of 90 days.

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LEIOMYOSARCOMA

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AB-V1-33

Leiomyosarcoma (LMS) is a type of soft tissue sarcoma. Soft tissue sarcomas can develop in muscle, fat, blood vessels, or any of the other tissues that support, surround and protect the organs of the body. Leiomyosarcoma is one of the more common types of soft tissue sarcoma to develop in adults.About 1 person in 100,000 gets diagnosed with LMS each year. Leiomyosarcoma is one of the more common types of soft-tissue sarcoma, representing 10 percent to 20 percent of new cases. (Leiomyosarcoma of the bone is more rare.) Sarcoma is rare, contains of only 1 percent of cancer cases in adults. Leiomyosarcomas can be very unpredictable. They can rest as it is for long periods of time and become normal after years. It is a cancer, meaning generally not very responsive to chemotherapy or radiation. The best outcomes occur when it can be removed surgically with wide margins early, while small and still in original place. The types are soft tissue leiomyosarcomas that grows in various anatomic locations are similar. However, based on the location of the tumor, prognosis and possible treatments differ. For this reason leiomyosarcoma of soft tissues is classified into four groups. Leiomyosarcoma of Soft Tissue Retroperitoneal Somatic soft tissue, Leiomyosarcoma of Cutaneous Origin, Leiomyosarcoma of Vascular Origin (large vessel),Leiomyosarcoma in the Immunocompromised Host, Leiomyosarcoma of Bone. Treatment arebecause of the rarity of these tumors, and the need for a multi-specialty treatment team, treatment is best carried out in a specialized center with person having experience in sarcoma care. The treatment planning begins with a multi-disciplinary review of the patient's history, all available radiographic imaging, and the pathologic results from biopsy. A treatment plan is then formulated based upon the input from orthopaedic and general surgeons, musculoskeletal radiologists, pathologists, medical oncologists, and radiation oncologists.

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ADETECTION OF BREAST CANCER CELLS THROUGH IRON OXIDE MAGNETIC NANO PARTICLE BY USING MAGNETIC RELAXOMETRY

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AB-V1-34

Breast Cancer cells are hard to detect with Mammography at their initial stages since the method is capable of detecting the tumors of a size of 5mm and it cannot distinguish between beginning and malignant stages of breast cancer. In this case of Breast cancer, the Human Epidermal Growth factor Receptor 2 (HER-2) plays an important role by inducing the breast cells to produce more copies of HER-2 receptors that is over expression of HER-2 receptor proteins. These types of cells are called as HER-2 positive cells. The iron oxide nanoparicles conjugated with HER-2 antibodies can detect the breast cancer cells more specifically than any other methods. The emerging application of magnetic relaxometry, by using superconducting quantum interference device (SQUID) sensors, is fast and potentially more prominent than mammography because it is designed to detect tumor-targeted iron oxide magnetic nanoparticles conjugated with HER-2 antibodies.

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HUMAN HEAD TRANSPLANTATION

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AB-V1-35

Human head transplantation is defined as a surgical operation which involves the process of grafting of one human head to the body of other human. The first human head transplantation was done by an Italian Neurosurgeon Dr SERGIO CANVAERO in December 2017 at China, He had transferred head transplantation in 1000's of mice and the result was success. His curiosity to make a breakthrough in the modern science world made him as a successive surgeon of human head transplantation. He has been planning for this surgical procedure for about 10-30 years. At last he proved his worth to the world. Canavero waited to prove his transplantation technique in human head. He need a volunteer. Russian computer scientist "VALLERY SPIRIDOV" 30 year old person who suffers from a rare motor neuron disease known as "WERDING-HOFFMAN'S DISEASE". This disease causes the nerve cells responsible for sending the signals from CNS to your muscle to detoriation which leads to muscular atrophy. In severe cases difficulty in breathing and swallowing, currently this disease has no treatment. So vallerywilling to be as a volunteer for this human head transplantation which makes him to give a new life.CANVERO raising around $18 million to pay for the transplantation procedure.The process of Transplantation Involves,The surgeon (Dr SergieCanavero) claims the transplant took about 150 doctors and nurses. The full operative process will take 36 hours. CANAVERO says the 1st step of operation is the proposition involves maintaining the blood supply around the donor body but also critically maintaining the blood supply to the recipient head. So that the recipient (VALLERY) do not suffer a terrible stroke or brain death. To maximize the length of time that the blood supply can be interrupted the recipient and the donor body both are cooled to a subnormal temperature to around 17 degree Celsius. Once everything is cooled then the donor body will be slowly dissected from the donor head. The neck is cutted first and then the major blood vessels are linked with this tube. The spinal is cutted carefully to minimize the brain damage. Then the donor head is cutted and fused with recipient body. Doctor's take exactly 60 minutes to fuse the head. After fusing head the patient is given regular electrical stimulation in the spinal cord to maintain the stimulations of the nerve fibre of spinal. The patient is kept in "coma for 6 weeks". This is to set an intact connection between the newly jointed nerves and muscles of the patient. After 6 weeks the patient responses and he is given physiotherapy for his regular body movements.

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FREQUENCE OF BRAIN TISSUE DONATION FOR RESEARCH AFTER SUICIDE

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ANNAI VEILANKANI'S PHARMACY COLLEGE-SAIDAPET

AB-V1-36

Brain tissue donation is different from other organ donation. As a brain donor, your brain will be used for research purpose only; it will not be given to another person. Our scientists use brain tissue donated after death to better understanding the causes of and treatment options for Alzheimer's disease and related dementias. From these results we will be made available to your family. So everyone must be a participant and consider donating brain tissue after death or suicide. From brain tissue donation, we can obtain CNS tissue which is essential for neurobiological research in mental illness or mental health. There is a very big demand for the availability of human brain tissue with greatest interest in investigation of basic biological processes associated with mental disorder. In present days, there are biobanks for brain tissues are extremely scarce dedicated to psychiatric disorders. The important reasons for brain tissue donation after suicide to biobanks are, for helping others. Research procedure or process for mental health are scientist to understand autism, schizophrenia, depression, and other brain disorders. If we think these are brain disorders, it is time to study the brain. Brain tissue donation is used to study the difference between the normal brain and injured brain or other mental disorders. Almost everyone can be considered for tissue donation after death or suicide. Brain tissue donation after suicide is an enduring gift for research for future generation. Animal models do not fully recapitulate human disease. So many new technologies create many opportunities for research using human brain tissue. RNA expression profiling, Proteomics, in depth DNA studies, Therefore, the target is to discover or identify disease modifying therapies become available for human mental illness. Our objective is to describe the frequency of brain tissue donation for research purpose by families of individuals and committed suicide. In neurodegenerative diseases, in psychiatric disorders death is unpredictable and violent. Suicide is most tragic by mental illness and there is a strong link between them. Such violent deaths represent an opportunity not only for studying biology of suicide but also for most serious expressions of the various associated mental disorders. This research is sponsored by the Department of Defense. The department also works with other TBI researchers throughout the country with particulars expertise such as brain imaging and medical treatment development. The exclusion is for brain lesions person due to trauma at the time of death or suicide by drug overdose. There is a evidence that the organ donation rate is higher than in other causes of death. Donation for research in cases of suicide is absent. So I request all to donate brain tissue for research and become a part of researchers and helping others and our family also in identifying the treatment of mental illness and make the world free from mental disorders and avoid suicide.

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STABILITY TESTING OF OPTHALMIC OCUSERT CONTAINING ACICLOVIR

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ANNAI VEILANKANNI'S PHARMACY COLLEGE-SAIDAPET

AB-V1-37

Aciclovir is used as an anti-viral drug for treating Herpes simplex infection.Ocusert are sterile preparations which are designed for ophthalmic use. Stability of the ocusert are very important parameter, were integrity and stability of the product was determined. Stability is defined as the pharmaceutical product which with stands its physical, chemical and therapeutic properties from the date of manufacture to the expiry date. Instability of the product results due to physical and chemical reactions during storage. The detoriation of the product results in reduction of activity and formation of toxic product. To ensure the safety of the patient, activity of the product and to predict the shelf life the stability studies were performed. As per ICH guidelines the stability testing were performed in the stability chamber. Accelerated stability testingwere conducted to detect the instability in short period. Optimized ocular inserts were packed in amber coloured bottles tightly plugged with cotton and capped. Ocusert were stored at different temperature and humidity conditions in the stability chamber. The stability results shows no significant changes in all the parameters of the ocusert, so the drug remained intact and stable in the ocular inserts on storage.

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TOXICITY STUDIES OF TRIPLE HERBAL EXTRACT USING EXPERIMENTAL RATS.

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AB-V1-38

Aim of this study is to create a novel data on the safety and toxic levels of this Triple Herbal Extract(THE)preparation for further screenings and usages. Mostly single plant extract toxicity and safety study is being done, but required data for Triple Herbal Extract (THE)OECD 425 guideline is followed to conduct the toxicity effect for this study. This guideline is preferred to conduct the toxicity, due toMinimize the number of animals to estimate LD50 and confidential interval (CI) estimation. The OECD 425 guideline is concurrently under taken with revision of test guidelines 420 and 423 for oral toxicity testing.

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INVITRO ANTHELMINTIC ACTIVITY OF ETHANOLIC AND AQUEOUS EXTRACTS OF *PSEUDARTHRIA VISCIDA* (L) WEIGHT & ARN.

E.DIVYA PREETHI, C.SARAVANAN

SRI LAKSHMI NARASIMHA COLLEGE OF PHARMACY,
PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-39

The plant *PseudarthriaViscida*(L) belongs to the family Fabaceae found everywhere in the county. Almost all parts of this plant are being used in traditional medicine to treat various diseases. Methanol and Aqueous extracts of plant extracts of PseudarthriaViscida (L) were investigated for their anthelmintic activity against Earthworms. The effect of alcoholic and aqueous extracts was studied at the doses of 5, 10, and 25 mg/ml, the extracts was diluted with normal saline.Ethanolic and aqueous extracts showed paralysis and death of worms on concentration dependant manner. Among two extracts of PseudarthriaViscida (L) aqueous extracts showed more potent anthelmintic activity.

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EVALUATION OF ANTI-INFLAMMATORY ACTIVITY OF METHANOLIC AND AQUEOUS EXTRACTS OF LEAVES OF *IPOMOEA STAPHYLINA* IN CARRAGEENAN-INDUCED PAW EDEMA IN RATS

K.V.KEDHARINATHAN, A.V.MOHAMMED THAHA, D.Z.SUHASINI, C.SARAVANAN

SRI LAKSHMI NARASIMHA COLLEGE OF PHARMACY,
PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-40

The present study was designed to investigate the anti-inflammatory activity of the Methanolic extract of Ipomoea staphylina. Inflammatory diseases including different types of rheumatic diseases are very common throughout the world. Therefore the search for a better tolerated anti-inflammatory agent appears to be a necessity. Ipomoea staphylina is used as a folk medicine for the treatment of inflammation in India. Present study revealed that the plant Ipomoea staphylina possesses a significant anti-inflammatory activity as evidenced in carrageenan induced paw edema method, which supports the folkloric claim of the anti-inflammatory activity of the plant. Our finding supports the reported therapeutic use of herb Ipomoea staphylina in tribal medicine for the treatment of inflammation. The most active extracts can be subjected to isolation and used for the therapeutic as anti-inflammatory agents and also to undertaken further pharmacological studies.

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VALIDATION OF DEVELOPED ANALYTICAL METHOD FOR METOPROLOL SUCCINATE FLOATING TABLETS BY REVERSE PHASE HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

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PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-41

Aim of the present investigation was to validate a new analytical, simple, sensitive, selective and precise High Performance Layer Chromatograpic (HPLC) method for the estimation of Metoprolol Succinate in tablet dosage form. Metoprolol Succinate chemically(±) 1-(isopropylamino)-3-[p-(2-methoxyethyl) phenoxy]-2-propanol succinate (2:1) (salt) used as an Anti-hypertensive agent. The mobile comprised of Acetonitrile:Phosphate buffer (0.05M phosphate buffer of pH 3.0) in the ratio of 350:650and set at a flow rate of 1.2ml/minute. Detection was carried out at 222nm using pre-packed Symmetry C_{18};250x4.6mm, 5µmparticle size column. The retention time of Metoprolol Succinate was found to be 1.825. The assay was linear over concentration range of 12.5µg/ml to 75µg/ml (R=0.99995). The limit of detection and the limit of quantification were found to be 2.68µg/ml and 4.46µg/ml respectively. The amount of Metoprolol Succinate was found to be 100.229±0.47 and the accuracy of Metoprolol Succinate was found to be 99.460%to 100.369%. The statistical analysis of the data showed that the method is reproducible and selective for the estimation of Metoprolol Succinate in tablet dosage form during routine analysis.

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FORMULATION AND EVALUATION OF SUSTAINED RELEASE BUCCAL TABLETS OF LABETALOL HYDROCHLORIDE

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SRI LAKSHMI NARASIMHA COLLEGE OF PHARMACY,
PALLURU, CHITTOOR, ANDHRAPRADESH.

AB-V1-42

The buccal tablets preparation appears to be an attractive approach for achieving better drug product effectiveness, many anti-hypertensive tablets available in oral dosage form. The rationale of the study is to design a sustained-mucoadhesivebuccal tablets for Labetalol Hydrochloride which is having a short biological half-life (6-8 hrs). The Labetolol having less bio availability (25%) and due to its dose requirement Labetololfavors the traditional approach to sustained release delivery. The buccal sustained release tablets of Labetalol were prepared by the direct compression method.The prepared tablets were evaluated for uniformity of weight, hardness, friability, content uniformity, disintegration time and in vitro drug release. The results experiment shows that % drug release of all formulations are in range 85.1%-99.39% after 8 hrs formulation-7 having high % drug release up to 12 hrs to having the dose 100mg of Labetolol. Based on the result obtained the F7 considered as the optimum formulation to design time dependent Drug Delivery System.

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DESIGN AND EVALUATION OF GASTRO RETENTIVE DRUG DELIVERY SYSTEM CONTAINING FAMOTIDINE AS DRUG MOLECULE

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SRI LAKSHMI NARASIMHA COLLEGE OF PHARMACY,
PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-43

Famotidine a classical of antiulcer drug which can be used forthe management of various gastric problems, it was formulated as time release of floating tablets of famotidine adapting unconventional combination of bases such as carbopal 940LR $HPMC_{E50}$ or better prolonged release and mainly exhibit least floating time and swelling bio adhesive (or) mucoadhesive and high low density systems. The prepared floating tablet were studied using design in 5 set formulation (F_1.F_5) were prepared by varying the polymer concentrations, the floating tablets were also examined for density range from 0.00150-0.00183 g/cm^3 which is less than the density of water which aid the tablet to float. At the end of ten hours the drug release was observed from 88.6 % - 96.3%.The highest drug release was observed with formulation F2 and the more prolonged drug release was observed with F1.The floating tablets formulated with HPMC polymer exhibit prolonged drug release and the total floating time(>24 Hrs).

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EVALUATION OF PHYTOCHEMICAL CONSTITUENTS AND ANTIOXIDANT PROPERTY OF *VERONIA CINEREA Linn*

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SRI LAKSHMI NARASIMHA COLLEGE OF PHARMACY,
PALLURU, CHITTOOR, ANDHRAPRADHESH.

AB-V1-44

The aim of investigation is to found out the phytochemical constituents and evaluate the antioxidant property of the ethanolic extract of *Veroniacinerealinn*. The extraction is carried with the 90% of ethanol by soxhlet extraction method. The ethanolic extract of whole plant of *V.cinerealinn* obtained was subjected to preliminary phytochemical screening for the detection of various plant constituents. The antioxidant property of ethanolic extract were evaluated by invitro studies such as A) assay for nitric oxide scavenging activity B) diphenyl 2 picrylhydrazyl(DPPH) assay. The ethanolic extract showed considerable antioxidant property compared with the standard of ascorbic acid. The antioxidant avtivity of ethanolic extract may be due to the presence of alkaloids and saponins.

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VALIDATION OF DEVELOPED ANALYTICAL METHOD FOR VALSARTAN FLOATING TABLETS BY REVERSE PHASE HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

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PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-45

Aim of the present investigation was to validate a new analytical, simple, sensitive, selective and precise High Performance Layer Chromatograpic (HPLC) method for the estimation of Valsartan in tablet dosage form. Valsartan chemicallyN-(1-oxopentyl)-N-[[2-(1H-tetrazol-5-yl) [1,1'-biphenyl]-4[-yl] methyl] L-Valine used as an Anti-hypertensive agent. The mobile comprised of Acetonitrile: Water (500:500) and set at a flow rate of 1.0ml/minute. Detection was carried out at 273nm using pre-packed Symmetry C_{18};250x4.6mm, 5µmparticle size column. The retention time of Valsartan was found to be 3.036. The assay was linear over concentration range of 10.00µg/ml to 60µg/ml (R=0.9999). The limit of detection and the limit of quantification were found to be 3.68µg/ml and 11.16µg/ml respectively. The amount ofValsartan was found to be 101.645±1.32 and the accuracy of Valsartan was found to be 98.990%to 101.887%. The statistical analysis of the data showed that the method is reproducible and selective for the estimation of Valsartan in tablet dosage form during routine analysis.

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FORMULATION AND EVALUATION OF FAST DISSOLVING TABLETS OF TERBUTALINE SULPHATE

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PALLURU, CHITTOOR, ANDHRAPRADHESH.

AB-V1-46

Terbutaline sulphate is a selective beta2 receptor agonist widely used as chronic obstructive pulmonary disease. Fast dissolving tablets of Terbutaline sulphate were prepared using Superdisintegrants, Sodium starch glycolate, Cross-Carmellose sodium, Treated agar and Avicel PH 102 as a diluent by direct compression method. Twelve formulations were prepared using different super-disintegrants,mannitol, aspartame and orange flavour enhance the organoleptic properties. The prepared tablets were evaluated for uniformity of weight, hardness, friability, content uniformity, wetting time, in vitro dispersion, disintegration time and in vitro drug release. Formulation containing sodium starch glycolate showed excellent in-vitro disintegration time (18 sec) and in-vitro dispersion time (21 sec) as compared to other formulations. It indicates sodium starch glycolate may be used to enhance the disintegration time and dispersion time. The optimum formula (A5) released (100.08%) with the 10min compared to marketed formulation which released (99.58%) with 40min.

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VALIDATION OF ANALYTICAL METHOD FOR ESTIMATION OF NEVIRAPINE HCl IN TABLET DOSAGE FORM BY RP-HPLC

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PALLURU, CHITTOOR, ANDHRAPRADHESH

AB-V1-47

Aim of the present investigation was to validate a new analytical, simple, sensitive, selective and precise High Performance Layer Chromatographic (HPLC) method for the estimation of Nevirapine HCl in tablet dosage form. Nevirapine HCl chemically l-cyclopropyl-5,1 l-dihydro-4-methyl-6H-dipyrido [3,2-b:2',3'-e][l,4] diazepin-6-one is used as an anti-HIV agent. The mobile phase comprised of Phosphate buffer: Acetonitrile (800:200) and set at a flow rate of 1.0ml/minute. Detection was carried out at 220nm using pre-packed Symmetry C18 250* 4.6mm, particle size column. The retention time of Nevirapine HCl was found to be 4.702. The assay was linear over concentration range of 10µg/ml to 40 µg/ml (R=0.9999). The limit of detection and the limit of quantification were found to be 35.52 ng/ml and 107.64 ng/ml respectively. The amount of Nevirapine HCl was found to be 100.70±0.35 and the accuracy of Nevirapine HCl was found to be 99.86% to 101.96%. The statistical analysis of the data showed that the method is reproducible and selective for the estimation of Nevirapine HCl in tablet dosage form during routine analysis.

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DESIGN, DEVELOPMENT AND VALIDATION OF BIOANALYTICAL METHODS FOR PHARMACEUTICAL FORMULATIONS – REVIEW

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PALLURU, CHITTOOR, ANDHRAPRADHESH.

AB-V1-48

Any method developed for the analysis of analytes in biological fluids must yield consistent results despite the variations in conditions during the course of a project. An ideal bioanalytical method should include all of the probable effects that are going to occur during the routine analysis of study samples. Bioanalytical method validation includes all of the procedures that demonstrate that a particular method used for quantitative measurement of analytes in a given biological matrix, such as blood, plasma, serum, or urine is reliable and reproducible for the intended use. Method development for the interested component in finished product or in process tests and the sample preparation of drug product and to provide practical approaches for determining selectivity, specificity, limit of detection, limit of quantitation, linearity, range accuracy, precision, recovery solution stability, ruggedness, and robustness of liquid chromatographic methods to support the Routine, in process and stability analysis. The present review aims to study the bioanalytical method development and validation for various pharmaceutical formulations.

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DESIGN, DEVELOPMENT, EVALUATION AND OPTIMIZATION OF FLOATING DRUG DELIVERY SYSTEMS AS GASTRORETENTIVE DRUG DELIVERY SYSTEMS – A REVIEW

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PALLURU, CHITTOOR, ANDHRAPRADHESH.

AB-V1-49

Most of the orally administered dosage forms have several physiology limitations such as GI transit time, incomplete drug adsorption due to incomplete release of drug from the device and too short residence time of the dosage forms in the adsorption region of GIT. To overcome these limitations many attempts have been made by scientist by designing various drug delivery systems among these systems, floating drug delivery system is one of the approaches which remain buoyant due to their lower density that of the GI and Intestinal fluids, both single and multiple unit systems have been developed. Prolonged gastro retention of the therapeutic moiety may offer numerous advantages, including improvement of bio availability, therapeutic efficiency and possible reduction of dose. Floating drug delivery systems includes the various formulations like tablets, beads, microspheres etc., in this present review focusing the various types of formulations, formulation methods, polymers used, evaluation parameters and optimization methods used for developing the floating drug delivery systems.

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FORMULATION AND EVALUATION OF SAXAGLIPTIN FLOATING AND MUCOADHESIVE TABLETS

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SCIENCE INSTITUTE PHARMACY, IBRAHIMPATNAM, HYDERABAD.

AB-V1-50

The aim of the present study was to develop gastro retentive floating tablet of saxagliptin to maintain sustain release manner of the drug for over 12 hrs. Saxagliptin is antidiabetic drug and 9 formulations of 250 mg tablets were formulated by using direct compression technique by using polymers such as HPMC K_4M and carbopol 934. All the formulations were passed various physicochemical evaluation parameters and they were found to be within limits. Whereas from the dissolution studies it was evident that the formulation (F7) showed better and desired drug release pattern i.e., 93.62% in 12 hours. The drug release model of this formulation complies with zero order kinetics. Based on the results we can certainly say that floating type gastro retentive drug delivery system holds a lot of potential for drug having solubility as well as stability problem in alkaline pH or which mainly absorb in acidic pH and explore this drug delivery which may lead to improved bioavailability and ensured therapy with many existing drug

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EVALUATION OF ADVERSE DRUG REACTIONS INCEDENCE IN HIV PATIENTS USING HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

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RAO'S COLLEGE OF PHARMACY, NELLORE, A P – 524 320.

AB-V1-51

An estimated 33 million people are living with Human Immunodeficiency Virus (HIV) and around 3 million people have access to Highly Active Antiretroviral Therapy (HAART) worldwide.The introduction of the Highly Active Antiretroviral Therapy (HAART) has led to significantreduction in AIDS related mortality and morbidity.To evaluate the incidence, preventability and risk factors of adverse drug reactions (ADR's) in human immunodeficiencyvirus (HIV) patients using highly active antiretroviral therapy (HAART).This is a retrospective case control studyconducted by using review of clinical records of adult patients started on ART centerin St. Joseph hospital, a 350 bedded speciality hospital, during the period of June 2017 to December 2017.Out of a total of 528 clinical records, 208 were reviewed. The overall incidence of the deaths in the HIV patients using HAART therapy was found to be 24.24 %.Of 208 patients 71 were reported ADR's to the different ART regimens and of 71 ADR reports majority of reports were in ZLN regimen (46%) followed by ZLE (21%), SLN (20%) and SLE (13%).Our study finding showed that there is a need of active Pharmacovigilance center with intensive monitoring for ADRs by the Pharmacist in Indian HIV positive patients. Antiretroviral therapy is effective for HIV treatment but also increasingly complex. The many adverse effects of therapy may cause symptoms affecting a variety of organ systems.

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FORMULATION AND EVALUATION OF DOLUTEGRAVIR SUSTAIN RELEASE MATRIX TABLETS

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SCIENCE INSTITUTE PHARMACY, IBRAHIMPATNAM, HYDERABAD.

AB-V1-52

The aim of the present study was to develop sustain release matrix formulation of dolute gravir tablets to maintain sustain release manner of the drug for over 18 hrs. Dolutegravir is second generation antiretroviral drug.8 formulations of 250 mg dolutegravir tablets were formulated by using direct compression technique by using polymers such as HPMC and carbopol 940. All the formulations were passed various physicochemical evaluation parameters and they were found to be within limits. Whereas from the dissolution studies it was evident that the formulation (F6) showed better and desired drug release pattern i.e., 96.32% in 18 hours and best fitted to first order model with R^2 value 0.99.Short time stability studies indicates that no appreciable changes in drug content and *in vitro* drug release of optimized formulation of F6.

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PREPARATION AND EVALUATION OF PREGABALIN SUSTAINED RELEASED TABLETS

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AB-V1-53

The aim of the present study was to develop sustained release formulation of Pregabalin to maintain constant therapeutic levels of the drug for over 10 hrs. Various natural polymers such as Locust bean gum, Gum karaya and Ghatti gum were employed as polymers. Pregabalin dose was fixed as 50 mg. Total weight of the tablet was considered as 150 mg. Polymers were used in the concentration of 20 and 40 mg concentration. All the formulations were passed various physicochemical evaluation parameters and they were found to be within limits. Whereas from the dissolution studies it was evident that the formulation (F3) showed better and desired drug release pattern i.e.,98.89 % in 10 hours. It followed zero order release kinetics mechanism.

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DEVELOPMENT AND VALIDATION OF NOVEL ANALYTICAL METHOD FOR THE DETERMINATION OF METFORMIN AND LINAGLIPTIN IN BULK AND THEIR FORMULATION

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AB-V1-54

The objective of this study was to develop a simple, efficient, specific, precise and accurate Reverse phase High Performance liquid chromatography method for the simultaneous estimation of Metformin and Linagliptin Pharmaceutical Dosage form. The separation method was carried out using reverse phase C18 column, Inertsil ODS – 3V (250 mm x 4.6 mm x 5µm). The mobile phase used was a mixture of Phosphate buffer (1.625 g of Potassium Di Hydrogen Ortho Phosphate and 0.3 g of Di Potassium Hydrogen Ortho Phosphate in 550 ml water) pH 4.5 and Acetonitrile in the ratio of 60:40 (v/v) at isocratic mode. The flow rate was 1.0 mL/min, column temperature was 30°C and eluents were monitored at 280 nm using waters 2695 alliance HPLC instrument equipped with the Waters 2998 PDA detector and Empower 2 software. With the optimized method, the retention times of Metformin and Linagliptin were found to be 3.048 and 4.457 respectively, with theoretical plate count and asymmetry as per the ICH limits. The method has shown a good linearity in the concentration range of 500-3000µg/ml from Metformin and 2.5-15µg/mL for Linagliptin with Regression coefficient (R2) of 0.99 and 0.99. The percentage assays were found to be 99.28% and 99.54% respectively for Metformin and Linagliptin. The method was found to be accurate (with percentage mean recoveries 100% for Metformin HCl and 100% for Linagliptin), precise, robust, stable and Degradation studies are conducted under various conditions. The proposed method was validated in accordance with ICH guidelines and hence, can be successfully applied to the simultaneous estimation of Metformin and Linagliptin tablet formulations.

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A Novel Analytical Method Development and Validation for Estimation of Glibenclamide in tablet dosage form by using RP-HPLC

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AB-V1-55

The prime aim of the current work is to develop and validate a novel, sensitive, reverse phase High Performance Liquid Chromatography (RP-HPLC) technique for the estimation of Glibenclamide in dosage form. Chromatographic separation was achieved on a Chromosil column, (150mm×4.6mm x5µ) using an isocratic method with mobile phase composed of Potassium di-hydrogen phosphate buffer (pH 4.5): Acetonitrile in the ratio 60:40 v/v. The flow rate was 1 ml/min, temperature of the column was maintained at ambient and detection was made at 233 nm. The run time was 12 min. The developed method was validated according to the International Conference on Harmonization (ICH) guidelines with respect to linearity, accuracy, precision, specificity and robustness. The developed method was linear for Glibenclamide from 10 - 50 µg/ml and the linear regression obtained was > 0.999. Precision, evaluated by intraand inter-day assays had relative standard deviation (R.S.D) values within 1.5 %. Recovery data were in the range 98.2% to 100.9% with R.S.D. values < 1.5 %. The method is precise, accurate, linear, robust and fast. The short retention time allows the analysis of a large number of samples in a short period of time and, therefore, should be costeffective for routine Quality Control in the pharmaceutical industry.

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Fabricated approach for an effective wound dressing material based on a natural gum impregnated with plant extract.

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AB-V1-56

Human skin primarily serves as the protective physical barrier against the environment. Globally, over 6 million people have been reported to suffer from severe burns among which 3 lakh people die immediately. Various plant extracts of folklore claim has been used in the management and treatment of wounds. The herbalsencourage blood clotting, accelerate wound healing and fight against infection. One such traditionally acclaimed plant is *Acalyphaindica* which have demonstrated its wound healing potential both *in vitro* and *in vivo*by its excellent wound contraction, epithelialization and strong angiogenic property. Commercially the wound healing plant extract is physically available as ointments and aqueous forms. The drawbacks of ointments and aqueous forms are that, they dry up immediately, cannot be applied to the exudating wounds and maceration to the surrounding healthy tissue occurs if uncovered. To avoid such complications, approach of electrospinning *Acalyphaindica* along with a biodegradable polymer gum, as wound dressing material was utilized. Electrospinning is a versatile and flexible technique in producing non-woven, patterned, three dimensional and sub-micron fibers. The fibers produced, mimic the structure and biological function of extra cellular matrix (ECM), has excellent mechanical and physical strength to withstand *in vivo* biological forces and act as the scaffold for the cells to synthesize necessary proteins. In this present work, the process of making *Acalyphaindica* loaded natural gum nanofibers, its physical, chemical and mechanical characteristics together with its cell compatibility were demonstrated.

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IR ESTIMATION OF MODAFINIL IN RAW MATERIAL AND TABLET DOSAGE FORM

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SURYA SCHOOL OF PHARMACY, VIKRAVANDIPIN-605652,TAMIL NADU.

AB-V1-57

Simple and sensitive infrared spectrophotometric method has been developed for the estimation of modafinil in tablet dosage form and the Beer's concentration range was found to be 1.0mg to 2.5mg. The correlation coefficient for the method was found to be 0.999 and the developed method was analyzed for specificity, limit of detection (LOD), limit of quantification (LOQ), linearity of response, precision and accuracy; thus the proposed method could be adopted for routine analysis of raw material and its formulation.

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EVALUATION OF DIURETIC ACTIVITY OF *BAMBUSA ARUNDINACEAE (RETZ) WILLD.* LEAVES IN WISTAR ALBINO RATS

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SURYA SCHOOL OF PHARMACY, VIKRAVANDIPIN-605652, TAMIL NADU,

AB-V1-58

The aim of this study has been to investigate the possible diuretic activity in dried leaves of Bambusa arundinaceae (Retz) using in albino wistar rat. The preliminary phytochemical screening of the extract showed the presence of chemical constituents like alkaloids, glycosides tannins, flavonoids, proteins, amino acids, carbohydrate and steroids. The comparison was made between the leaves of Bambusaarundinaceae and known diuretic drug Furosemide (20 mg/kg ,p.o). Parameters such as total urine output and urine concentration of Na^+, k^+ and cl^- were investigated. Bambusa arundinaceae leaves powder increases urine output and also increase the excretion of Na^+, k^+ and cl^- electrolytes. Extracts were made by using ethanol, chloroform and aqueous. In this, aqueous extract of leaves showed more diuretic activity than ethanolic and chloroform extract. This study indicates that leaves extract of Bambusa arundinaceae has showed beneficial effect in producing diuretic activity.

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NEUROPHARMACOLOGICAL PROPERTIES OF AQUEOUS EXTRACT OF *BAUHINIA TOMENTOSA* L. LEAVES IN MICE

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SURYA SCHOOL OF PHARMACY, VIKRAVANDI.

AB-V1-59

Bauhinia tomentosa is a traditional medicine used to treat Diuresis, Aphrodiasias, Diabetes, Dysentery, Inflammation and Hyperlipidemia. The present study was carried out to investigate the possible neuropharmacological activities of aqueous extract of Bauhinia tomentosa L. leaves in mice. Theeffects of the extract on Central Nervous System were evaluated by elevated plus maze, spontaneous locomotor activity, forced swim test, diazepam induced sleeping time, rota rod apparatus and haloperidol induced catalepsy. The extract at doses 200 and 400 mg/Kg revealed the anti-anxiety activity. TheCentral Nervous Systemdepressant activity was confirmed by spontaneous locomotor activity, forced swim test and diazepam induced sleeping time in mice at the doses of 200 and 400mg/Kg, p.o. Itsnootropic activity was confirmed by increase in inflexion ratio at dose of 400mg/Kg,p.o. of body weight. The extract has shown significant effect on motor coordination at dose of 400mg/Kg and potentiated the catalepsy at 90mins after haloperidol administration at doses, 200 and 400mg/Kg p.o. The results conclude that the aqueous extract of Bauhinia tomentosa possesses anxiolytic, depressant, nootropic and skeletal muscle relaxant propertyalong with its anti-psychotic activity.

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ANTIPYRETIC ACTIVITY OF LEAF AND FLOWER EXTRACTS OF NELUMBO NUCIFERA GAERTN.

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SURYA SCHOOL OF PHARMACY, VIKRAVANDI, PIN-605652.

AB-V1-60

The aim of the present study is to evaluate the antipyretic activity of leaf and flower extracts of Nelumbo nucifera Gaertn. on Brewer's yeast induced Pyrexia in Wistar albino rats. The comparison were made between the ethanol and ethyl acetate extracts and a standard antipyretic drug Paracetamol 150mg/kg body weight; p.o. The preliminary phytochemical screening of the ethanol and ethyl acetate extract of leaf and flower of NelumbonuciferaGaertn. showed the presence of alkaloids, saponins, flavonoids, steroids, triterpenoids, carbohydrates, proteins and amino acids, fixed oils, fats, gums and mucilage. In the acute oral toxicity study, the ethanol and ethyl acetate extracts of Nelumbo nucifera Gaertn. leaf were given up to the dose of 2000mg\kg. There was no acute toxicity or mortality was observed. From the experimental study conducted in wistar albino rats, it was observed that the ethanol and ethyl acetate extracts of Nelumbo nucifera Gaertn. leaf and flower exhibited significant reduction in yeast elevated rectal temperature.

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ARTIFICAL SKIN

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AB-V1-61

Skin, the large organ of the human body which is organized into an elaborate layered structure consists of mainly the outermost epidermis and the underlying dermis our skin is very sensitive and easily prone to damage. If is a complex organ that is difficult to replace when it is irreversibly damaged by burns, trauma or disease whereas artificial skin is an effective means treatment for full-thickness burns and its remains most common form of treatment in patients with significant skin loss. The term was used in the late 1970's and early 1980 to describe a new treatment for massive burns and deep dermal treatment. The first successful artificial skin was developed at MASACHUSETTS INSTITUTE of TECHNOLOGY. Artificial skin consists of a dermal substitute of borine collagen and chondroitin-6-sulfate and an epidermal layer of synthetic polysiloxane polymer (silastic) which encouraged the growth of new skin cells. Artificial skin find application in a broad range of areas including robotics; MEMS, human computer interferes and other areas that involved mechanical deformation. Sensitive artificial skin is really a boon in the field of robotics. The functions like the human skin which has the ability to feel and touch objects i.e. Permanent skin replacement. This review summarizes the various techniques in the synthetic of artificial skin

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CULTIVATION, IDENTIFICATION and EVALUATIO OF BENEFICIAL ENRICHED MICROBES

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The objective of this study was to cultivation, identification and evaluation of beneficial enriched microbes. The fruit pulp was extract from carcica papaya, cucurbita and musaparadisica and it was inoculated with curd which contain lactic streptococci, S.latics and Entrococcusfaecalis microorganism which is beneficial to humans and kept it for 21 days for fermentation in incubator. The cultivated microbes is identified by using staining techniques and evaluated for its microbial activity against E.Coli and Fungi agar media by cylinder plate method and Agar diffusion well variant method. In cylinder plate method and agar diffusion well variant method based on the measurement of the diameter of microbial growth inhibition surrounding the cylinder containing various dilution of test compound which are placed on the surface of a solid nutrient medium, previously inoculated with a culture of a suitable microorganism. The beneficial microbe is very excellent antibacterial and antifungal activity on a culture media.

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REVIEW ON APPLICATION OF DENDRIMER IN CANCER THERAPY

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Dendrimer is a nanosized polymer molecule which is a linear polymers they are composed of large number of monomer units that were chemically linked together and it is unique in structural properties. As a result of this unique structural properties they are widely used in various application like drug delivery system, gene therapy and chemotherapy. Dendrimers are characterized by its. shape,size,density,polarity,reactivity and solubility. It is focused in the treatment of cancer by targeting the specific active site without affecting the neighbouring cell. Dendrimer itself act as carrier for drug and bioactive molecules. The bioactive agents can beeasily encapsulated into the interior of the dendrimers or chemically attached i.e. conjugated or physically adsorbed onto the dendrimer surface, serving the desired properties of the carrier to the specific needs of the active material and its therapeutic applications. In addition to supplying a multivalent backbone for drug attachment, dendrimers also provide access to various new polymer architectures that are potentially relevant to drug delivery applications. bioavailability and the use of the complexes as vehicles for the controlled release of drugs . The application of dendrimer–drug complexation in the enhancement of drug solubility and Most of drug are class 2 drug having problem of less solubility which improved by dendrimer drug delivery by entrapment of drug in core of dendrimer. Dendrimer also increases stability of drug. Drug incorporated into dendrimer by simple encapsulation, covalent interaction, electrostatic interaction. Dendrimer given along with Polyethylene glycol (PEG) having less cytotoxicity. The property of Dendrimer like monodispersity, molecular weight, architecture improves drug delivery. This review is focused on structure,property,oncology and drug delivery.

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PHARMACOGNOSTICAL, PHYTOCHEMICAL AND PHARMACOLOGICAL STANDARDIZATION OF AEGICERAS CARNICULATUM

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Aegiceras corniculatum, commonly known as black mangroce, river mangrove or khalsi, is a species of shrub or tree mangrove in the Myrsine family with a distribution in coastal and estuarine areas ranging from India through south East Asia to southern china, New Guinea and Australia. It grows as a shrub or small tree up to 7 m high though often considerably less. It grows in mud in estuaries and tidal creeks, often at the seaward edge of the mangrove zone. The fruit is curved and cylindrical or horn shaped, light green to pink in color and 20-75 mm long. The Aegiceras corniculatum consists of amino acid and carbohydrates. The WHO recommend encourages the use of these traditional herbs because of its huge amount of the raw material is easily available. It comparatively safe and has low toxicity. The A. Corniculatum has the pharmacological action of producing anti-Nocieptive activity. The study of drugs used by traditional healers is an important object of pharmacognostical research.