A Quarterly Newsletter of Krupanidhi College of Pharmacy, Bangalore | For Private Circulation Only

SYNERGIA

UPDATES ZEITGEIST FUN

VOL8.ISSUE1

AUGUST-OCTOBER 2021

WISH YOU ALL HAPPY & HEALTHY NEW YEAR 2022

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S.NO	SUSPECTED DRUG	INDICATION	ADVERSE DRUG REACTION	MANAGEMENT OF ADR
1	T. Mazetol	Dissociative Mood Disorder	Drowsiness, Dryness of Mouth, Fatigue	Dose Reduced
2	T. Olanzepine And T. Clozapine	Schizophrenia	Constipation	Dose Reduced
3	Inj. Ceftriaxone	Surgical Prophylaxis	Itching	Drug Withdrawn
4	T. Tolpa D	Pain and Inflammation	Red Raised Lesions Over Axilla and Arms	Drug Withdrawn
5	T. Glimy M1	Diabetes Mellitus	Drug Induced Hypoglycemia	Dose Reduced
6	C. D Rise	Low Calcium Level	Constipation	Additional Drug Given
7	T. Att (Antitubercular Therapy)	Pulmonary Tuberculosis	Vomiting	Additional Drug Given
8	Inj. Ceftriaxone	Surgical Prophylaxis	Vomiting	Drug Withdrawn
9	Inj. Ceftriaxone	Uti	Low Back Ache And Itching	Drug Withdrawn
10	Inj. Taxim	Fibroid Polyp	Vomiting And Itching	Drug Withdrawn
11	Inj. Optineuron	Ads With Panic Disorder	Headache, Chills	Drug Withdrawn
12	T. Lorazepam and T. Haloperidol, T. Baclofen	Anxiety, Insomnia, Delirium	Excessive Drowsiness	Co Administration Stopped
13	T. Ativan	Attention Deficit Syndrome	Numbness In Legs	Dose Reduced
14	T. Clonazepam	Recurrent Depressive Disorder	Tingling Sensation of Extremities	Dose Reduced
15	Inj.Amikacin, Inj.Gentamicin, Inj Paracetamol (Fixed Drug Combination)	Typhoid	Hyperpigmented Patch and Fluid Filled Lesions	Drug Withdrawn
16	T. Piroxicam	Fever	Fixed Drug Eruption	Drug Withdrawn
17	Inj Piperacillin Tazobactam Combination	Lung Abscess	Rashes Over Upper Limbs and Back	Drug Withdrawn
18	Inj. Ceftriaxone, Inj. Furosemide	Edema, Copd	Nephotoxicity	Drug Withdrawn
19	Inj. Emeset, T.Escitalopram	Paracetamol Poisioning, Depression	Bradycardia	Drug Withdrawn
20	T. Cardace	Heart Failure	Multiple Erythematous Nodules, Papules, Plaques	Drug Withdrawn
21	Clobetasol Propionate and Salicylic Acid Ointment	Psoriasis	Multiple Erythematous Papules Over Scalp, Abdomen, Upper Limb	Drug Withdrawn
22	Inj. Methyl Prednisolone	Intervertebral Disc Prolapse	Severe Pain In Back and Weakness In Lower Limb	Drug Withdrawn

SOURCE: Center-watch, USFDA, Current as on December 2018 Compiled by Meghanadh Manyam, Rakshith reddy Katta, Navya Vaddavalli (Pharm D interns, KCP)

From Chairman's Desk

Prof. Dr. Suresh Nagpal
Chairman,
Krupanidhi Group of Institutions

Higher education is the touchstone by which the progress of a nation is measured in today's times. As the country stands poised on the brink of an exciting future, higher education is as important as administrative policy. Today, the society, the academia and the industry need to stand together and share their commitment, enthusiasm and expertise in order to create a responsible, progressive and skilled citizenry. In keeping with this very spirit, Krupanidhi has been focusing on providing all-round, relevant and comprehensive education to students for the last three decades in an environment that impresses upon ethics, values and mutual respect.

Whenever I am asked to define education, the following quote always comes to my mind "The whole purpose of education is to turn mirrors into windows". Education is the fountainhead of growth, progress and development in any part of the world. Its contribution has been responsible for upliftment of the society, in shaping the moral fiber of the student community and contributing to the nation's well–being by producing the bright minds of tomorrow. We at the Krupanidhi have structured an effective and holistic education system in a way that prepares the students to be an effective and efficient workforce and make the best use of the opportunities that the industry sends their way. The curricula of the various colleges under the Krupanidhi Trust are designed to keep pace with the ever evolving and dynamic trends and challenges of the industry today.

The courses offered by our colleges not only enable the students to develop a gamut of skills but also apply them to real–world problems, thus fast–tracking their careers. The processes of teaching, training and evaluation follow the modern Gurukul system which makes the education system at Krupanidhi in sync the latest trends in technology and commerce. Education, thus, rather than being lecture oriented, didactic and traditional, is more student–driven.

We at Krupanidhi have a vision: "We don't just polish stones, we carve them". The colleges under the aegis of the Krupanidhi Trust are not just colleges, but they are also the only finishing schools of their kind in India. It is not about merely teaching etiquette, but it's about making them 'industry–ready' to face the challenges placed before them in the dynamic corporate environment, thus bridging the gap between education and the industry. Krupanidhi has gained immense recognition for the same and have also been crowned "Asia's Fastest Growing Private Educational Institute" at the WCRC Leaders Asian Education Excellence Summit and Awards ceremony.

In this day and age where parents as well as students constantly worry about studies, the relevance of it, the quality of guidance and the learning environment, as well as the wholesomeness of the living environment, we at Krupanidhi firmly believe that the best of each of these worlds is present in our beautiful, 11–acre campus. I invite you all, dear students, to walk through our gates to feel the positivity vibrating in the atmosphere at Krupanidhi, and join us in making it a truly world–class institution.

It gives me an immense pleasure to know that the 9th Volume of "SYNERGIA" is being released which is an excellent platform to exchange ideas and innovations in the field of pharmacy. It is one of the finest opportunities for the students and faculties in Krupanidhi Pharmacy College to showcase their flairs and achievements. I would like to congratulate the entire team for successfully launching this edition.

Best Wishes

Prof. Dr. Suresh Nagpal
Chairman, Krupanidhi Group of Institutions

From Principal's Desk

Dr. S.V.Rajendra, M. Pharm, PhD.
Principal,
Krupanidhi College of Pharmacy

I am immensely pleased to bring this news letter Synergia to the fraternity of Pharmacy. The Management and the Editorial Team needs to be congratulated for their efforts.

"Education is the most powerful weapon which you can use to change the world".
" Nelson Mandela"

I'm delighted to welcome you all to Krupanidhi College of Pharmacy. Krupanidhi College of Pharmacy is a pioneer in Pharmacy education that aims to provide quality teaching towards employable standards. Located in a green eco-friendly campus, we offer par excellent Pharmacy education to produce professionals involved in drug development to bed side patient care.

"We carve stones we just not polish them we make monuments out of them."

The Krupanidhi College of Pharmacy is NAAC A and ISO accredited institute. KCP continues to build on its rich history and tradition of excellence by offering quality degree programs that provide students with the necessary education and skills, supplemented by excellent infrastructure and instrumental for their careers in Pharmacy. The College offers a comprehensive package of Pharmacy education and training opportunities begins with the Diploma in Pharmacy (D.Pharm), Bachelor of Pharmacy (B.Pharm), Pharm D, Pharm D (PB), Master of Pharmacy (M.Pharm) and Doctoral Programs (PhD).

The College has active Training and Placement Cell which conducts campus drive annually. Large pool of Pharmaceutical companies and Research Organizations participate in this drive. The institutes provides all latest instruments, ambience of a class green campus and best Teachers and Researchers who are working round the clock of student welfare and care. There is overall personality development here with our concept of Finishing School. To nurture the students and to promote students performance, we have adopted GURUKULA SYSTEM, wherein students are individually concentrated and motivated to do give their best in exams. At this institution, we refine the academic skills, fine-tune the aesthetic senses and work towards building a holistic culture that values the individuality of each student, helping them realize their innate potential. Institute is well equipped with all the latest sophisticated instruments, the ambiance of a world-class green campus, and the best Teachers and Researchers who are working round the clock for student welfare and care. Apart from well equipped Laboratories, KCP has well established Library, Hostel, and Canteen, play ground, gymnasium and others.

I once again heartily welcome and congratulate all the budding pharmacists in Krupanidhi College of Pharmacy, Bengaluru and to the world of emerging pharmacy profession,

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GOAL OF CLINICAL PHARMACY

Prof. Rajesh Kumar Rawri
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Clinical pharmacists practice optimized use of medicines to promote safe, effective and economic medication and ensure quick recovery. It also helps in preventing diseases and maintaining good health thus safeguarding productive man hours and boosting GDP. The major goal of clinical pharmacy services is rational drug therapy and rational use of medicines. This principle helps in improving pharmaceutical care and optimizing medication related outcomes both in terms of safety and efficacy.

Absence of clinical pharmacy services impedes the objectives of "Health for all" like anything. There is huge performance gap in the field of therapeutics in absence of advanced clinical pharmacy services. Patient specific drug therapy is right of every patient. Clinical pharmacist supervised prescription auditing, accurate dispensing and patient counseling for strict compliance and adherence to medication regimen are essential features of holistic approach for prevention and cure of diseases and restoration of health.

Drug information services, preparation of hospital formulary, therapeutic drug monitoring and conduct as well as monitoring of clinical trials for the investigational new drugs are the applied goals of clinical pharmacy services. Medical detailing by representatives of manufacturing houses has commercial angle, whereas drug information service of the clinical pharmacy department of the hospital updates the prescribing physicians with evidence based resources for better prescribing judgment. Pharmacovigilance, pharmacotherapeutics and pharmacoeconomics aspects of medicinal products should influence the prescribing habit in best interest of patients. This is pivotal to the basic principle of preventing drug interactions, adverse drug reactions and inadvertent medication errors which lead to therapeutic failures, iatrogenic diseases and spiraling cost of medication as well as increased burden on health sector resources in terms of revisits and hospitalisation.

Patient compliance failures and medication regimen deviations including use of other medicines without the knowledge of prescriber are other major reasons that adversely affect therapeutic outcomes. Improving patient awareness about their medicines, convincingly explaining intricacies and fallouts of noncompliance and highlighting the importance of medication regimen adherence are ground foundation of therapeutic success of prescription.

In nutshell clinical pharmacist promotes

- ☐ Evidence based appropriate use of medicines and medical devices to secure maximum efficacy and safety in economic manner;
- ☐ Awareness about their medicines among the patients;
- ☐ Continuous knowledge updates among prescribers and other healthcare professionals;
- ☐ Balancing between benefits and risks of drug use in individual patient;
- ☐ Minimization of healthcare expenses both for the patients pocket and national health scheme budget;
- ☐ Minimizing disease burden both for communicable and non communicable diseases through drug information and health education programme;
- ☐ Improving quality of life;

As a stitch in time saves nine, so is the importance of organized pharmaceutical care in protecting public health from threats posed by irrational use of medicines including irrational combination products.

PATIENT FOCUSED PHARMACEUTICAL CARE

Dr. R. S. Thakur
Chief Editor,
Journal of Pharmaceutical Research,
Krupanidhi College of Pharmacy, Bengaluru.

Pharmaceutical care is medication related service that aims are targeted outcomes not restricted to curing the disease but also achieve improved quality of life for individual patient. This objective makes it a patient focused service unlike the drug product focused service that was the conventional role of pharmacist. Today's medicines are highly potent and potentially hazardous to health, if used indiscriminately. That is why rational drug therapy and rational use of medicines is major concern for the healthcare system planners, healthcare providers and consumer activists. The therapeutic relationship between the medicine and the patient is highly influenced by the pathophysiology and pharmacokinetic proficiency of the patient that invariably vary from individual to individual. The clinical trial pharmacokinetics data relates to limited population in the environment of limited other drugs presence in contrast to general treatment population where concomitant use of other drugs whether prescribed or otherwise is very common feature. Thus the effects and outcomes of post marketing therapy compared to investigational clinical trials substantially differ that finally special warnings, precautions, labeling requirements are issued or in the worst situation product is withdrawn.

This evidently proves that data of clinical trials is only limited guarantee of safety and efficacy issues and post marketing surveillance is more important to be sure on count. This reinforces the need for advanced pharmaceutical care in therapeutics. Structured pharmacovigilance set up for recording and reporting therapy related events is crucial for overall success of regimen and safety of patient population.

Pharmacoeconomics is another hot area that helps in affordability of medicines and affordability related patient compliance failures that adversely affect therapeutic outcomes. The fallout of spiraling cost of branded products and affordability of pocket friendly generic equivalents over that is useful tool to reach medicine to all. Promoting quality generic products and strictly monitored generic production of medicines followed by quality surveillance is a patient friendly approach to health for all commitment.

One of the most important features of patient focused pharmaceutical care is adherence to medication regimen in ambulatory patients. Adequate and appropriate counseling on accurate use of medication regimen pays dividends in terms of therapeutic outcomes. Thus patient focused pharmaceutical care ensures a win-win situation for the healthcare planners, providers and the patient at large.

Ramesh Datta Pant
Health Safety Analyst
Covance

Alumni Speak

MY LIFE AS HEALTH SAFETY ANALYST

Currently I am a part of Covance, a leader in global contract organisation, which has worked on all the top 50- best selling drugs available today in all various fields nonclinical, clinical and commercialization services. Covance is among Fortunes world's most admired companies in 2019 and Best place to work for LGBTQ Equality. I am working in Covance Clinical Development Services Team as Safety Science Analyst under eTrail Master File (eTMF) team. Being in the team I got chance to deal with most the clients of Covance which includes all the leading pharmaceutical and health research organisations.

My role includes: assist in the processing of expedited safety reports (ESRs) Maintenance of adverse event tracking systems. Set-up and maintenance of project files, core process files and central safety files. Assist with the reporting of ESRs to clients, regulatory authorities, ethics committees, investigators and Covance project personnel, if required, within study specified timelines. Provide administrative support to PV&DSS personnel (e.g. word processing, proof-reading and editing correspondence/documents, mailings, filing, faxing, photocopying and archiving etc). Ensure all incoming axed Serious Adverse Event (SAE) reports are appropriately stamped, logged into the departmental tracking application and forwarded in a timely manner to the designated Drug Safety Associate (DSA)/Senior Drug Safety Associate (Sr. DSA). Where applicable, check the PV&DSS hotline mailbox regularly for reported SAEs and forward messages to the designated DSA)/Sr. DSA. Assist in the maintenance of files regarding adverse event reporting requirements in all countries. Maintain and distribute a weekly schedule for PV&DSS staff. Work within the Standard Operating Procedure (SOP) system, including departmental Work Instructions (Wls). Build and maintain good PV&DSS relationships across functional units. Ensure submission of client-related document is sent to the client within designated timeframes (e.g. SAE reports, ESRs, Safety Management Plans (SMPs). Assist the DSA/Sr. DSA in preparation of materials needed for client and/or investigator meetings and Any other duties as assigned by management.

Being alumni of Krupanidhi College of pharmacy with prestigious history of 30 years and gurukula educational foundation it my privilege to be a part of Doctor of Pharmacy programmes. The college have helped me for shaping as the health care professional. One of the best part about college is dedicated and energetic faculty members which always motivates to excel in academic and extracurricular activities and enrolment of international students from different parts of the world which signifies unity in diversity. In conclusion, my first job was full of experiences; good, bad, bitter and happy moments which have sharpened me to be a better person and be more professional in my work. I perceive this opportunity as a big milestone in my career development and I am glad to have had the opportunity to participate in this experience. There are a lot of impressions i take home with me and also some ideas which I hope to implement in my personal and professional career.

KNEE OSTEOARTHRITIS

Dr. NARAYANA SRINIVAS GUDI
Professor and HOD
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Knee Osteoarthritis is the most common arthritis. It is a disease of ageing. It frequently affects working age adults. It is the largest cause of disability and lost work days. OA is now considered as the disease of entire joint and not just that of articular cartilage. Goals of treatment are to alleviate pain, improve function and retard the degenerative process.Treatment is multidisciplinary which includes Patient education, Physical therapy, occupational modifications and pharmacological and non pharmacological interventions. OA can result from trauma or disease processes.

Risk factors for primary OA are age > 50 years, prolonged stresses on the joint, high BMI etc. Malalignment of lower extremity hastens the progression of OA. The clinical features of OA are pain on walking, stiffness of joint, difficulty in climbing steps, crepitus, bony tenderness, clinical deformities like varus or valgus deformities, radiologically joint space reduction, osteophyte formations, subchondral sclerosis. Laboratory findings are not specific but bone biomarkers are being investigated as early harbingers. Cartilage and bone markers and inflammatory markers have shown correlation with progression of the disease.

Pathogenesis of OA involves all joint tissues including cartilage, bone synovium ligamentum capsular structures and muscles. Cytokine expression of subchondral bone has a role of cartilage degradation. They include IL-1, TNF-alfa etc. Intraosseous hypertension, venous statis and outflow obstruction cause pain associated with reduction in perfusion and p02. Evidence also shows that genetic factors too contribute to OA. During ageing process the type II collagen and proteoglycans undergo structural changes. The extra cellular matrix in the cartilage undergoes structural changes.

The remodelling capacity of the subchondral bone and cartilage diminishes with age. Understanding the processes that regulate the chondrocyte activity will help in treatment strategies by altering them. The approach to treatment of OA knee is improving pain and function and retard the disease progression.

Non Pharmacological therapies

1. Patient education and support

2. Weight losss

3. Physical therapy, ice therapy, ultrasonography, diathermy

4. Occupational therapy by providing walking aids, joint proliction technies

5. Exercises- strengthening of quadriceps and hamstrings

Pharmacological Therapy

Goal is to provide pain relief with least toxicity.
Topical- Diclofenac, Capsacin. Initial and long term usage.
Oral- Pure analgesics are acetaminophen, tramadol a centrally acting analgesic and opioid analgesics.

Intraarticular Therapy-Corticosteroids- intra articular steroids provide short term relief particularly during periods of inflammatory flares. More than 3-4 times a year are discouraged.

Viscosupplementation- intraarticular injection of hyaluronan is referred to as visco supplementation. Viscosity of the synovial fluid is entirely due to its hyaluronic acid content. It forms in integral part of proteoglycan of articular cartilage. Hyaluronic acid is a high viscoity polysaccharide that is produced naturally by the B cells. Its physicochemical properties are determined by molecular weight and spacial shape. Molecules interlink to form high viscocity solution.

Mechanism of Action: there is high activation of synoviocytes in OA. More cytokines and enzymes are produced. HA acts an important modulator. HA distributes forces uniformly, diminishes pressure across the joint. HA diminishes gene expression of cytokines and enzymes associated with OA. It also has analgesic effect by diminishing the sensitivity of nerve endings. HA provide better cartilage volume, better matrix quality, and higher chondrocyte density.

Indication: Viscosupplementation is indicated for treating OA. HA reverse the rheological properties of synovial fluid, achieve analgesia, improve function and regenerate the cartilage. Viscosupplementation is done as an OP procedure. Viscosupplementation consists of injection of exogenous HA into the knee joint. HA is a high viscocity polysaccharide that is produced naturally by B cells of synovial membrane. Under physiological conditions acts as a salt and is therefore named as sodium hyaluronate or hyaluronan. The clinical benefits of viscosupplementation have been well established. Early OA patients are more benefited. Benefits may last for 6 months to 1 year. It has shown better results than placebo or steroids. Further, with failed conservative treatment, surgery will be recommended to improve the quality of life. High tibial osteotomy and total knee replacement are the options recommended to the patient with knee osteoarthritis.

CASE REPORT

Multi-therapeutic approach for treatment of Recalcitrant, life threatening Pemphigus Vulgaris with Adverse Drug Reactions to various immunosuppressants

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Final Year Resident
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Dr. Raghavendra B N
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INTRODUCTION

Pemphigus vulgaris (PV) - autoimmune, blistering, mucocutaneous disorder that affects the skin and mucous membranes, mediated by circulating autoantibodies directed against desmogleins [1]. Desmoglein (Dsg) 3 is the major antigen but 50–60% of patients have additional antibodies to Dsg1, the antigen in pemphigus foliaceus (PF) .The underlying antibody profile is a major determinant of the clinical phenotype of PV. The mortality of PV was 75% on average before the introduction of corticosteroids (CS) in the early 1950s. Studies differentiating according to clinical phenotype have shown a lower mortality in patients with predominantly mucosal PV (1–17%) compared with those with mucocutaneous PV (34–42%) It is a potentially life-threatening disease with a high mortality rate if untreated (50% at 2 years, 100% at 5 years). [2].

ETIOLOGY

The intervention of environmental inducing factors (drugs, physical agents, viruses) is often the cause for the onset of the disease, [3] but in most patients, no inducing agent can be detected, so the cause of the outbreak remains unknown.The precipitating factors include multiple exogenous factors like drug intake [4], viral infections, physical agents, contact allergens, diet and endogenous factors like emotional stress, hormonal disorders, lifestyle [4]

CASE REPORT

Male patient, 42 years-old, known case of diabetes mellitus and hypertension since 3 years, was admitted to the hospitalwith a history of painful bullous lesions on the scalp and oral cavity since two months, with subsequent dissemination to the entire body. Cutaneous examination showed flaccid blisters, mostly withserous content, besides exulcerated lesions covered in honey-coloured crusts and pus-filled bullae (figure 1).The diagnostic hypothesis was pemphigus vulgaris, later confirmed by skin biopsies and direct immunofluorescence.Treatment with prednisolone 0.5-1mg/Kg/day and antibiotics to address the secondary infection was then started. Patient was planned to be started on Dexamethasone pulse therapy. Patient had previously taken 6 cycles of Rituximab therapy as per lymphoma protocol 6 months prior to admission in our hospital and developed hypersensitivity reaction which was a suspected Adverse Drug reaction (ADR) after the 6th cycle and hence was further discontinued on Injection Rituximab. Patient was also refrained from taking cyclophosphamide as he was given a cycle of dexamethasone cyclophosphamide pulse therapy (100mg dexamethasone IV for 3 days with 500mg cyclophosphamide on day 2) following which he developed fulminant hepatitis which was again a suspected Adverse drug Reaction (ADR) to cyclophosphamide. This episode further ruled out the use

of Methotrexate for the patient due to its known hepatotoxic side effects (idiopathic adverse drug reaction). Patient was given two cycles of high dose dexamethasone pulse therapy which only temporarily controlled the disease. The patient was discharged 30 days later, with as lightly improved clinical condition.

Figure 1: Multiple flaccid lesions with crusting present

After a 5-month period of remission, patient returned with the appearance of new flaccid bullous lesions and erosions (figure 2) with worsening of pain despite the daily use of prednisolone 0.5mg/Kg from a local hospital in tapering doses. Patient was admitted and was started on Dexamethasone azathioprine pulse therapy (100mg dexamethasone IV for 3 days with 50mg Azathioprine daily). Patient again developed elevated liver enzymes (Uncommon Side effect to Azathioprine) and was asked to discontinue azathioprine in fear of developing fulminant hepatitis. Patient again clinically improved and was discharged with maintenance therapy of daily use prednisolone and hepato- protective drugs.

Figure 2: Multiple new erosions with bullae

6 months later, patient again presented to us with clinical relapse, this time with extensive oral and skin erosions with widespread development of new lesions and multiple fluid filled bullae over the palms, back and scalp covered in honey-colored crusts and few raw lesions with bleeding (figure 3).As the patient's condition rapidly declined, patient was introduced to oral cyclosporine (3mg/kg/day) for rapid emergency response. Despite these actions, there was a decline in the patient's general condition, and a worsening of the cutaneous lesions, accompanied by the development of sepsis secondary to high doses of immunosuppressants and patient was started on broad spectrum antibiotics. His course in the hospital was complicated by recurrent sepsis with multiple strains of multiple-drug–resistant microbes including Pseudomonas aeruginosa, Staphylococcus aureus, and Enterococcus sp. A week after clinical improvement the patient was still developing new lesions which prompted the introduction of oral prednisolone along with mycophenolate mofetil (1-2mg/kg). After 45 days of hospitalization, the patient was discharged with an improved clinical condition on maintenance dose of methylprednisolone and mycophenolate Mofetil.

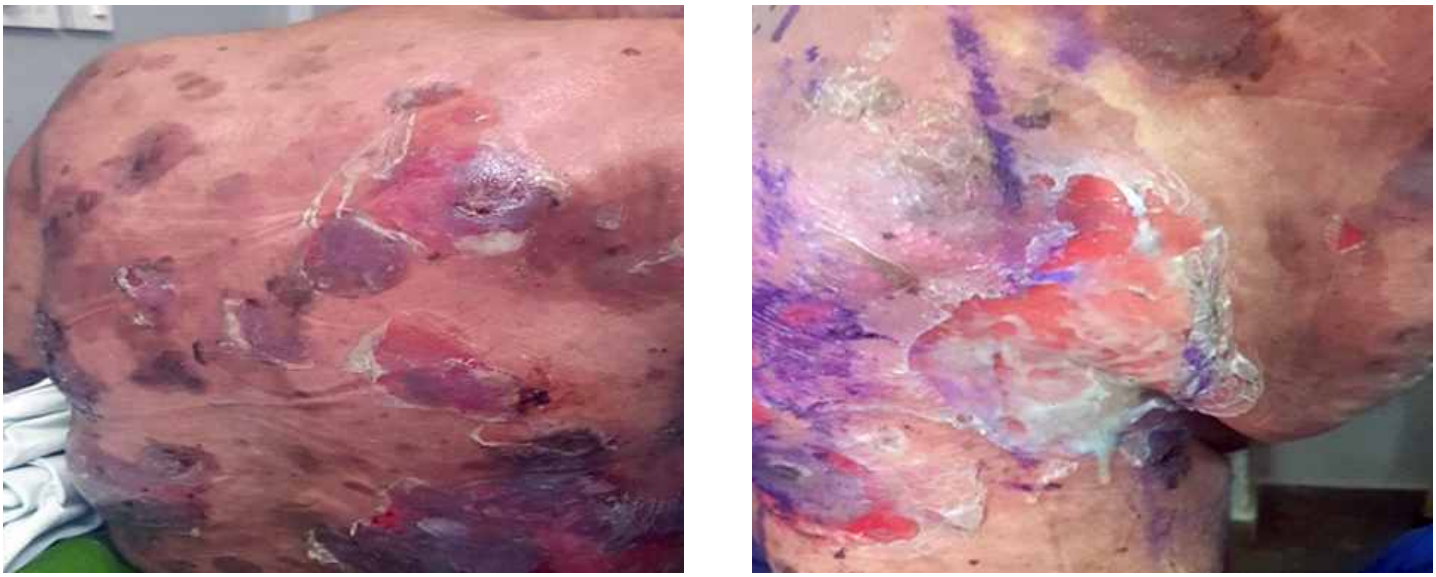

Figure 3: Multiple erosions with pus discharge and secondary infection

One month after being discharged, the patient had a clinical relapse, with the appearance of multiple new oral lesions and widespread involvement of the body associated with pain and odynophagia despite the daily use of oral prednisolone. Patient had discontinued mycophenolate mofetil due to financial constraints without prior notice to the treating team. Due to his condition and rapid progression of disease, patient was started on a multi therapeutic approach with high dose pulsed dexamethasone, oral Cyclosporine and Mycophenolate Mofetil. His skin continued to slowly heal and by the 32nd day of hospitilization, 95% of his BSA had re-epithelialized .Patient was put on maintenance doses of oral cyclosporine and mycophenolate mofetil on discharge and advised regular follow up.

After 28 months of recurrent admissions and followups, the patient continues to experience an occasional minor flare-up, during which time 5% to 20% of his BSA becomes denuded with few flaccid bullae appearing occasionally. The patient is currently being treated with oral prednisolone 20mg/day and mycophenolate mofetil 100mg/day and is on monthly followup. Patient has not developed any adverse reactions to cyclosporine and mycofenolate mofetil till date confirming their high therapeutic safety index.

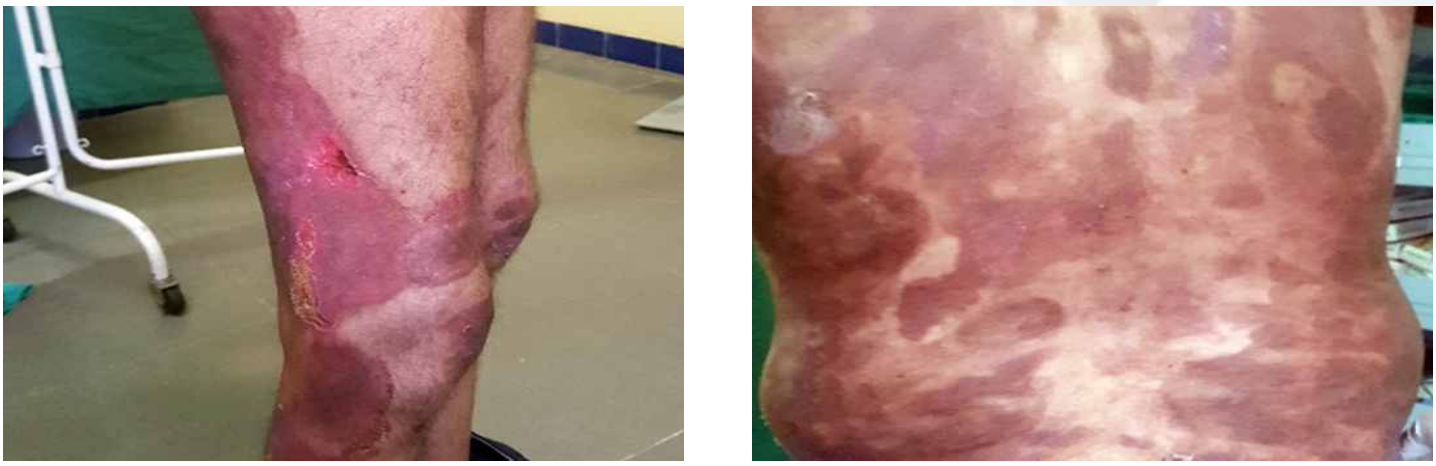

Figure 4: multiple post inflammatory hyperpigmentation patches with few crusted erosions and bullae

DISCUSSION

Systemic corticosteroids remain the mainstay of therapy for Pemphigus Vulgaris. Patients who do not respond to high-dose systemic corticosteroids, or those at risk of experiencing serious side effects, are treated with many different drugs because of their alleged steroid-sparing effect. Therapeutic strategies rely on the use of systemic corticosteroids alone or in conjunction with other immunosuppressant drugs such as azathioprine, mycophenolate mofetil, methotrexate, cyclophosphamide or immunomodulators like dapsone or intravenous immunoglobulin. [5].Despite advances in treatment, the mortality rate in PV is still between 5% and 25%. Currently, in most instances, the cause of death is opportunistic infections or other causes resulting from prolonged drug-induced immunosuppression, or other fatal side effects caused by long-term, high-dose corticosteroid therapy. Therefore, in patients nonresponsive to conventional therapies or who experience significant side effects to them, alternate therapies that are less harmful are needed.Unfortunately; multi-resistant courses exist and present a complex therapeutic challenge. In patients with severe, life-threatening, or recalcitrant Pemphigus Vulgaris, stronger therapeutic options should be considered, such as pulse therapy, high-dose intravenous immunoglobulins, plasmapheresis, and immuno adsorption of pemphigus autoantibodies. Once remission is induced, there should follow a period of maintenance treatment using the minimum drug doses required for disease control and during which occasional blisters are acceptable. Drug doses should be slowly reduced and patients should remain under follow-up while they remain on therapy. Ultimately, treatment may be withdrawn if there has been prolonged clinical remission. This decision should largely beclinical but the chances of relapse are reduced ifimmunofluorescence studies are negative[6][7]. However, direct immunofluorescence can occasionally remain positive in patients who are in remission and off all treatment. [8]

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EVENTS CONDUCTED AT KRUPANIDHI COLLEGE OF PHARMACY 2021

KRUPACON PHARMA 2021

Innovation in healthcare - making a difference together

GLOBAL ONLINE CONFERENCE & WORKSHOP ON

DRUG DEVELOPMENT 4.0:

EMERGING TECHNOLOGIES

July 2nd & 3rd, 2021

CHIEF GUEST

Prof. Dr. B Suresh
President- Pharmacy Council of India,
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Pro-Chancellor- JSS Academy of Higher Education and Research, Mysuru, India.

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Al-Dawadmi, Kinddom of Saudi Arabia.

INTERNATIONAL CONFERENCE

GLOBAL ONLINE CONFERENCE AND WORKSHOP ON DRUGS DEVELOPMENT 4.0

KrupaPharmaCon is an annual event in the calendar of Krupanidhi College of Pharmacy, Bangalore. In this 3rd Edition of KrupaPharmaCon Entitled "Drug Development 4.0: Emerging Technologies" we intend to showcase the emerging technologies in the pharmaceutical domain. This 2 day online global conference and workshop aims to cover the recent advances in the technological aspects related to drug development with special emphasis on emerging technologies which are increasingly deployed to rationalise and fasten drug development.

DETECTION OF COVID BY THERMAL SCANNER AND PULSE OXIMETERS BY NSS TEAM ON AUGUST 10 2021

SWACHHA PAKHWADA PROGRAM BY NSS TEAM ON 14TH AUGUST 2021

DETECTION OF COVID BY THERMAL SCANNER AND PULSE OXIMETERS BY NSS TEAM ON AUGUST 10 2021

WORLDS PHARMACIST DAY ON 25TH SEPTEMBER 2021

WORLDS PHARMACIST DAY ON 25TH SEPTEMBER 2021

CONGRATULATIONS!

STATE RANK HOLDERS IN RGUHS EXAMINATION 2020

5th Rank

URGEN PALMO
IV B.Pharm
87%

6th Rank

VIDI MEHRA
IV B.Pharm
86.91%

9th Rank

SUSHMA M
IV B.Pharm
86.18%

1st Rank

POOJA. C
II M.Pharm - Quality Assurance 87.70%

2nd Rank

MURULI R
II M.Pharm - Quality Assurance 86.75%

3rd Rank

VINUTHA K
II M.Pharm - Quality Assurance 86.02%

3rd Rank

K. GOWTHAMI
II M.Pharm - Quality Assurance 86.02%

4th Rank

P. SAMATHA
II M.Pharm - Quality Assurance 85.94%

6th Rank

SAI TEJA KANDIMALLA
II M.Pharm - Quality Assurance 83.70%

6th Rank

LOKESHWARI N
II M.Pharm - Quality Assurance 83.70%

7th Rank

MANUSHREE V
II M.Pharm - Quality Assurance 83.66%

4th Rank

SAIRA KHAN
II M.Pharm Pharmacology 87.01%

8th Rank

ANUSHA V
II M.Pharm Pharmacology
86.11%

9th Rank

VIDYA BANAKAR
II M.Pharm Pharmacology
85.72%

1st Rank

ARIKATLA KALYANI
II M.Pharm Pharm Analysis
87.27%

2nd Rank

MUNAZZA AFREEN
V Pharm D 86.60%

2nd Rank

NIRMA T
II Semester B.Pharm
85.09%

3rd Rank

PRATISTA
II Semester B.Pharm
85.09%

9th Rank

K MONICA
IV Semester
B.Pharm 80.71%

2nd Rank

MOHAMMAD ISMAEL FADIL JOWAHEER
VI Semester
B.Pharm 82.3%

5th Rank

NAVYA S P
VI Semester
B.Pharm 80.93%

8th Rank

NETHRAVATHI SN
VI Semester
B.Pharm 80.13%

8th Rank

REENA THAPA
VI Semester
B.Pharm 80.13%

SYNERGIA

A Quarterly Newsletter of Krupanidhi College of Pharmacy, Bangalore
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Please send your contributions, feedback and suggestions to : synergia.kcp@gmail.com