



**Prof. Dr. M. KARUNANITHI**  
B.Pharm., M.S., Ph.D., D.Litt.,  
CHAIRMAN & SECRETARY

A Newsletter on  
**CLINICAL PHARMA PRACTICE**  
An Update on Clinical Research and Drug Information



Volume : 9

Issue : 2

May – August 2023

An Official Publication from

Department of Pharmacy Practice,

**Swamy Vivekanandha College of Pharmacy,**

Tiruchengode, Namakkal (Dt), Tamilnadu.

E-mail : svcpdpic@gmail.com

Patron : **Prof. Dr. M. KARUNANITHI**, B.Pharm., M.S., Ph.D., D.Litt.,  
Advisory Board : **Dr. S. ARTHANAREESWARAN**, M.D., ( General Medicine )  
**Dr. K. SREERAAGHANIDHI ARTHANAREESWARAN**, M.S., ( Ophthal )  
**Dr. G. MURUGANANTHAN**, ( Principal - SVCP )  
Chief Editor : **Dr. P. SHARMILA NIROJINI**, ( Professor & HoD )  
Editorial Board : **Dr. V. SHANGAVI**, ( Asst. Prof. - Pharmacy Practice )  
**Ms. P. NITHYAKALA**, ( Asst. Prof. - Pharmacy Practice )  
**Mrs. NITHYA R**, ( Asst. Prof. - Pharmacy Practice )  
**Dr. P. MALARVIZHI**, ( Asst. Prof. - Pharmacy Practice )  
**Mr. A. PRATHAP**, ( Asst. Prof. - Pharmacy Practice )

## PHYSICIAN DESK - CASE DISCUSSION ON PARAQUAT POISONING



**Dr. JAYAPRAKASH, M.B.B.S., DNB.**

Consultant Anesthetist,  
Vivekanandha Medical Care Hospital,  
Tiruchengode, Namakkal Dt.

A 39-year-old male patient attempted suicide by consuming 10 ml of paraquat. He had no pre-existing health issues. After initial gastric decontamination the patient had complaints of dyspnea, skin issues, and oral ulcers. On admission, his blood pressure was high at 180/100 mmHg, pulse rate was 125/min, respiratory rate was 35/min, and Spo2 was 90%. He was admitted to the ICU and managed conservatively with intravenous fluids and close monitoring.

### TREATMENT AND CLINICAL OUTCOME :

- Day 1: Administered N-acetylcysteine, sedatives, antioxidants, and other medications. Patient on ventilation.
- Day 3: Initiated hemodialysis and added Fentanyl for sedation.
- Day 5: Transfused fresh frozen plasma due to prolonged clotting time.
- Day 6: Started prophylactic antibiotics.
- Day 8: Patient experienced bradycardia, received CPR and adrenaline.
- Despite efforts, patient succumbed on day 12 after paraquat ingestion.

### DISCUSSION :

Paraquat, an organophosphorus and non-selective contact herbicide is a highly toxic chemical that causes cell damage. Symptoms vary with dosage. Paraquat is excreted through the kidneys and can cause acute tubular necrosis. Death often occurs within two to three weeks after poisoning. Initial symptoms include mucosal ulcers in the oral cavity and "paraquat tongue." Paraquat intoxication leads to acute liver damage from Reactive Oxygen Species (ROS) Treatment involves supportive care, as there's no antidote. Supportive measures include N-Acetylcysteine to combat lung injury and antioxidants to improve lung and liver function. Hemodialysis is used for acute tubular necrosis, and dexamethasone pulse therapy may be administered. The outcome depends on the degree of poisoning and prompt medical attention.

### CONCLUSION :

Toxication with paraquat causes dose-dependent toxicity and is highly fatal. Due to its high toxicity and lack of paraquat-specific antidote, the mortality rate is very high. Although, some people continue their lives even after damage to organs manifests. The purpose of this case report is to understand the response of the patient to different managements and the clinical outcome.

**N. DHARSSHINI, PHARM. D INTERN**

## DRUG MONOGRAPH

### ZURZUVAE

#### GENERIC NAME :

Zuranolone

#### CATEGORY :

Neuroactive steroid gamma-aminobutyric acid (GABA) A receptor positive modulator

#### INDICATION :

For the treatment of postpartum depression (PPD) in adults.

#### MECHANISM OF ACTION :

The mechanism of action of zuranolone in the treatment of PPD is not fully understood, but is thought to be related to its positive allosteric modulation of GABA A receptors and thereby enhances inhibitory GABAergic signaling.

#### DOSAGE & ADMINISTRATION :

- ★ Administer with fat-containing food.
- ★ Recommended dosage is 50 mg orally once daily in the evening for 14 days can be used alone or as an adjunct to oral antidepressant therapy.
- ★ Dosage may be reduced to 40 mg once daily if CNS depressant effects occur.
- ★ Severe Hepatic Impairment: Recommended dosage is 30 mg orally once daily in the evening for 14 days.
- ★ Moderate or Severe Renal Impairment: Recommended dosage is 30 mg orally once daily in the evening for 14 days.

#### CONTRAINDICATION :

None

#### WARNINGS AND PRECAUTIONS :

**CNS Depressant Effects :** It can cause CNS depressant effects such as somnolence and confusion. If patients develop CNS depression, consider dosage reduction or discontinuation. Moreover causes driving impairment due to central nervous system (CNS) depressant effects, advise patients not to drive a motor vehicle or engage in other potentially hazardous activities requiring complete mental alertness, such as operating machinery, until at least 12 hours after administration of drug for the duration of the 14-day treatment course

**Suicidal Thoughts and Behavior :** Consider changing the therapeutic regimen, in patients whose PPD worsens, or who experience emergent suicidal thoughts and behaviors.

**Embryo-fetal Toxicity :** May cause fetal harm.

#### ADVERSE REACTIONS

- ★ Somnolence
- ★ Dizziness
- ★ Diarrhea
- ★ Fatigue
- ★ Nasopharyngitis
- ★ Urinary Tract Infection.

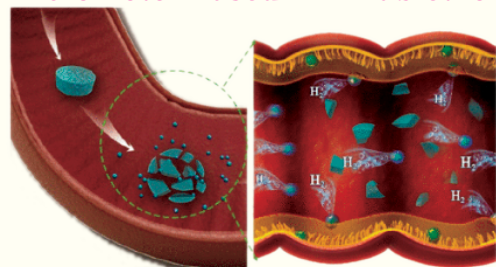
#### DRUG APPROVED ON :

August 4, 2023.

**ABI MONIKA A P, PHARM.D INTERN.**

## PHARMACY NEWS

### Micromotor Based Mini-Tablet for Oral Delivery of Insulin



Diabetes is a metabolic disorder characterized by hyperglycaemia due to defective secretion of insulin or its biological dysfunction. However, frequent subcutaneous injection of insulin often results in discomfort and local tissue infection. This study demonstrates the successful fabrication of a mini tablet based on self propelled micro motors with biocompatibility and biodegradability for oral colon administration of insulin. The insulin layer is first constructed onto the surface of a magnesium based micro motor via electrostatic interactions, followed by a

tableting process. The resulting mini-tablets are then coated with esterified starch with colonic degradation capability, thus achieving controlled release of the embedded micro motors in the colon region. In the meantime, autonomous movement of the released micro motors with a speed up to 76.22 m/s further results in enhanced colonic uptake and absorption of insulin, realizing long-term control of blood glucose for more than 5h.

**Collected by :**

**NEESHA SOLANKY K, PHARM D INTERN**

## DRUG SAFETY ALERTS IDENTIFIED AND ISSUED BY PvPi

ISSUING DATE	SUSPECTED DRUGS	INDICATION(S)	ADVERSE DRUG REACTION
May 31, 2023	Ceftriaxone	Urinary tract infections, Lower respiratory tract infections, Bacteraemia, Septicaemia, Meningitis, Abdominal infections and Infections caused by Pseudomonas species.	Electrocardiogram QT prolonged
	Levosulpiride	Depression and Schizophrenia in adults, G.I problems like functional dyspepsia, Nausea, Vomiting and Diabetic Gastroparesis.	Restless Legs Syndrome (RLS)
June 22, 2023	Teneligliptin	Type - 2 Diabetes Mellitus as a monotherapy adjunct to diet and exercise	Bullous Pemphigoid
July 28, 2023	Colistimethate Sodium	Serious infections caused by Gram-negative bacteria, including those of the lower respiratory tract and urinary tract, when more commonly used systemic antibacterial agents may be contraindicated or may be ineffective because of bacterial resistance.	Bartter's like Syndrome
August 22, 2023	Levonorgestrel	Emergency Contraceptive, Control of Fertility, Contraception, Menorrhagia & Endometrial Hyperplasia during Estrogen replacement therapy in women.	Deep Vein Thrombosis

### SWAMY VIVEKANANDHA COLLEGE OF PHARMACY - ADR MONITORING CENTRE

#### DEPARTMENT ACTIVITIES

##### STUDENT PARTICIPATION

Ms. Redlin Jani RR , Ms. S. Abirami and Ms. Abi monika A.P, Mrs. H.Femina, Ms. S. Sindhuja of Interns and 5<sup>th</sup> Pharm. D students and Mrs. Devika and Ms. Kanaga of 1<sup>st</sup> M. Pharm presented the case during 7<sup>th</sup> CPP-IGS 2023 on 24<sup>th</sup> June 2023.



Pharm. D Interns students attended one day International Level Continuing Education Programme (CEP) entitled on "Revolutioning Healthcare : Transforming Patient care through personalized medicine and Innovative on 28<sup>th</sup> July 2023 at JKKN College of Pharmacy.

#### ORGANISED CONFERENCE

7<sup>th</sup> National Level Seminar & Workshop Clinical Pharma Practice Indian & Global CPP - IGS - 2023 with theme of translating research into practice: Optimizing Clinical Pharmacy through updates in Pharmaceconomics, Pharmacoepidemiology & Pharmacovigilance during 23<sup>rd</sup> & 24<sup>th</sup> June 2023.

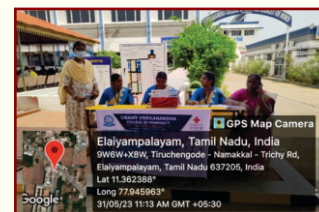
The programme was sponsored by The Tamilnadu Dr. M.G.R. Medical University with 10 Credit Points. A total of 330 delegates from various institutions was present and 70 oral presentation had been submitted by participants & Winners awarded with cash prizes.



## OUTREACH ACTIVITIES

### WORLD NO TOBACCO DAY

M.Pharm 1<sup>st</sup> year students commemorated the World No Tobacco Day on 31<sup>st</sup> May 2023 in front of IOB vivekanandha branch and created awareness about the impact of tobacco on health. A total of 63 beneficiaries benefited during the camp.



### WORLD HEPATITIS DAY

III<sup>rd</sup> Pharm.D students commemorated the World Hepatitis Day on 28<sup>th</sup> July 2023 at Govt Primary school, T. Kailasampalayam.

## PUBLICATIONS

- ★ Sharmila Nirojini P, Asma Fathumuthu, Devika M, Kanaka K, Pradeep P. A study on ADRs reported in a South Indian Tertiary care hospital. YMER. 2023 ; 22 (5) : 1227-1238.
- ★ Sharmila Nirojini P, Aarthi A, Abi Monika AP, Abirami S, Aditya J, Angaleshwari M. Role of Hydroxychloroquine in specific diseases - A Comprehensive Review. 2023: YMER;22(6). 773-791.
- ★ Nithyakala.P, Angaleshwari M. Advanced Innovation of Cardiac Surgical Technique Paediatrics. Journal of Hospital Pharmacy. 2023; 18(2) : 25 - 31.
- ★ Nithyakala P, Kalpitha Mrinali VB, Kowsalya V, Lavanya S and Madhumitha. Review on foot ulcer-A diabetic complications and its surgical treatment. International journal of Current Advanced Research. 2023;10(6):480-482.
- ★ Nithya Raju, Mathew RE, Sandhya, Shalni G, Shanmathi M, Harish NA, Anjana AG, Aghasi K. Spotlight on Sturge- Weber Syndrome : Unraveling the Enigma of a Neurocutaneous Disorder in Infants-An Overview. J. Pharm. Res. Int. June 2023 ; 35 (16) : 40 - 45.
- ★ Nithya R, Neesha SK, Narmadha UD, Redlin RR, Ramya A, Manisha B. Exploring Drug Prescription Patterns in the Neurology Department of a Tertiary Care Hospital: A Comprehensive Analysis. Journal of Drug Delivery and Therapeutics. 2023 Jul 15;13(7):38-45.
- ★ V. Shangavi, Aarthi. A, Angaleshwari. M, S.P. Santhosh Kumar. Omeprazole Induced Gynecomastia a Case Study. International Journal of Novel Research and Development. 2023 July ; 8 (7) : 2456 - 4184.
- ★ Malarvizhi P, Abi Monika A P, Aditya J.A Case Study on Mucormycosis and Its Clinical Outcomes.International Journal of Pharmaceutical Research and Applications.2023 Aug 24 ; 8 (4) : 2053 - 56.



Book Post

Please send your suggestions to The Chief Editor

**CLINICAL PHARMA PRACTICE NEWSLETTER**

Drug & Poison Information Centre,

Department of Pharmacy Practice,

**Swamy Vivekanandha College of Pharmacy**

Tiruchengode, Namakkal (Dt)., Tamilnadu.

To