# SEVEN HILLS TIMES

**Volume - 7** **Issue No - 6** **June - 2023**

*An Official Publication of*
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(Autonomous)
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**VISION**

To emerge as one of the premier pharmacy colleges in the country and produce pharmacy professional of global Standards.

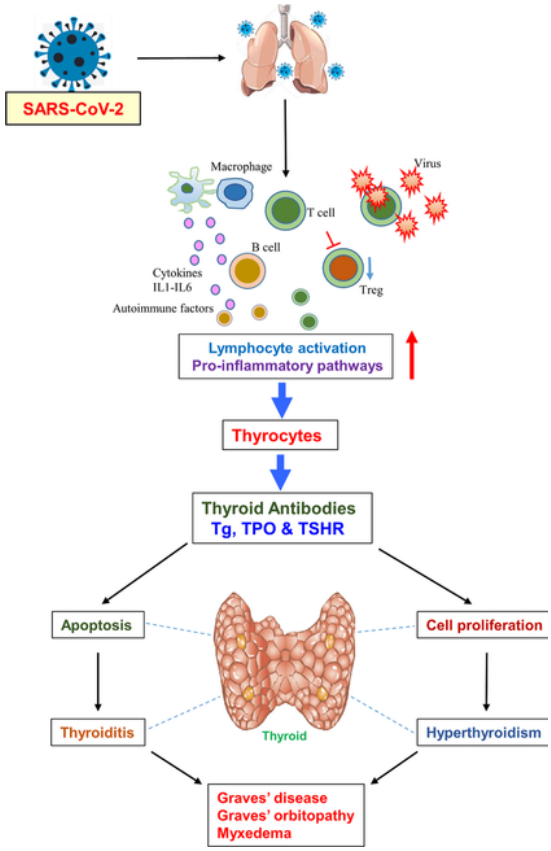
**MISSION**

- To deliver quality academic programs in Pharmacy and empower the students to meet industrial standards.
- To build student community with high ethical standards to undertake R&D in thrust areas of national and international standards.
- To extend viable outreach programs for the health care need of the society.
- To develop industry institute interaction and foster entrepreneurial spirit among the gradutes

## HYPOTHYROIDISM INDUCED ANEMIA

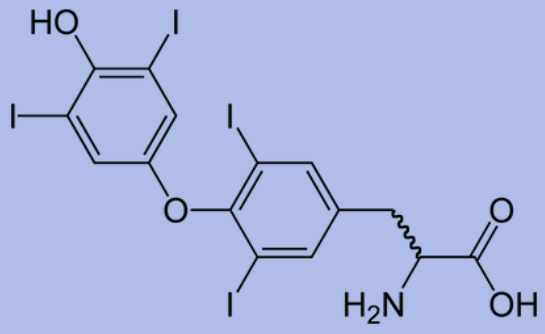

**N.Vijay Vignesh**
**Pharm D II nd year**


Hypothyroidism is a condition that occurs when the thyroid gland does not produce enough thyroid hormones. Anemia is a condition that occurs when the body does not have enough red blood cells to carry oxygen to the tissues. Hypothyroidism can cause anemia by reducing the production of red blood cells in the bone marrow, leading to a condition called anemia of chronic disease or chronic inflammation.



According to a study published in the Endocrine Journal, anemia is prevalent in hypothyroid patients. The study evaluated the frequency of anemia and etiology of hypothyroid patients. The study confirmed the strong presence of anemia among hypothyroid patients. The prevalence of anemia in overt hypothyroidism group was 43% while 39% subjects with subclinical hypothyroidism were anemic

Anemia is a condition that can lead to various complications and is connected with many health problems that affect a person's quality of life.




Symptoms of anemia include fatigue, weakness, headache, cold hands and feet, yellowish or pale skin, chest pain, dizziness or lightheadedness, irregular heartbeats, shortness of breath, difficulty concentrating, leg cramps, and insomnia.

It is important to note that anemia and thyroid dysfunction often co-occur, and both increase with age. Human data on relationships between thyroid disease and anemia are scarce. Higher odds of having anemia were observed in participants with both hypothyroid function and hyperthyroid function. In addition, reduced thyroid function at baseline showed a trend of increased risk of developing anemia during follow-up.

In conclusion, hypothyroidism can cause anemia by reducing the production of red blood cells in the bone marrow. Anemia is a condition that can lead to various complications and is connected with many health problems that affect a person's quality of life. It is important to monitor thyroid function and hemoglobin levels to prevent anemia in hypothyroid patients.

## "NAEGLERIA FOWLERI: UNRAVELLING THE ENIGMA OF THE BRAIN-INVADING AMOBEA"

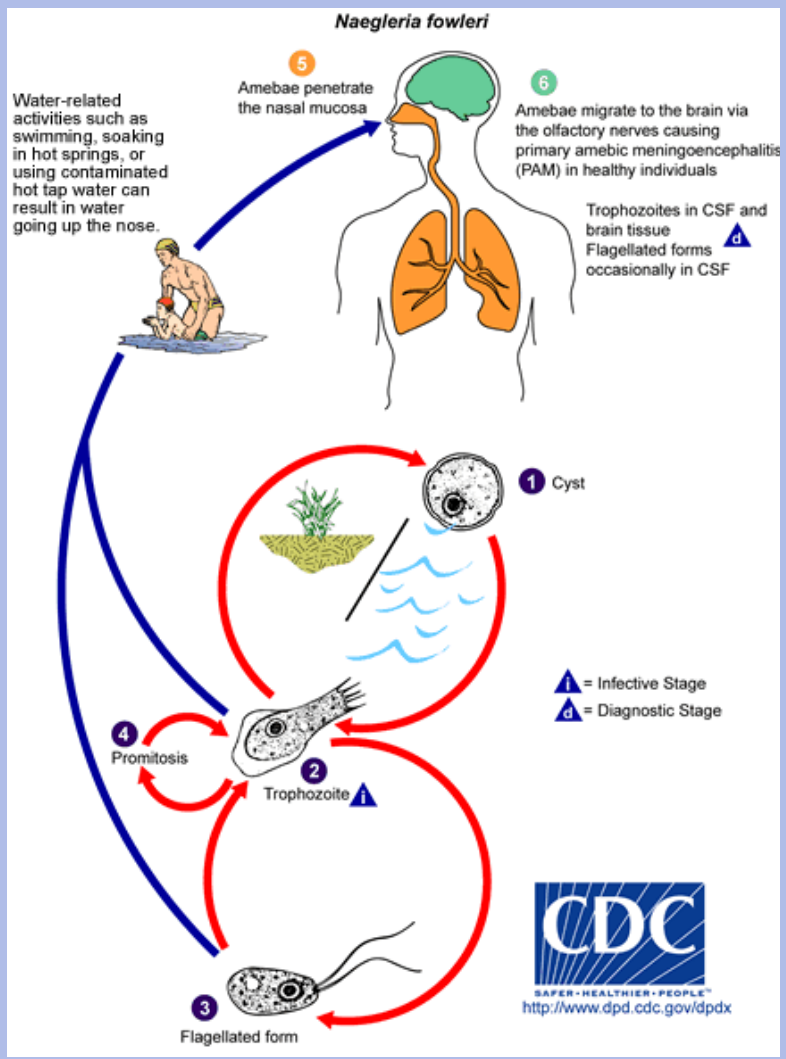
**S.Kumaravel, Pharm D II nd Year**

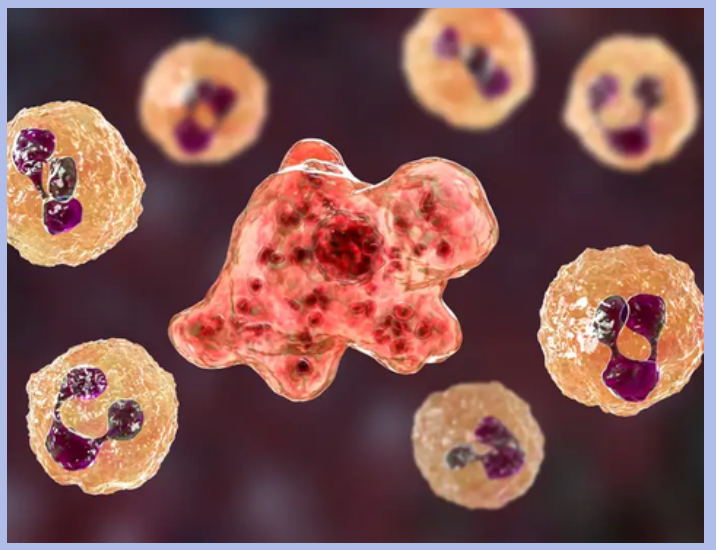
Naegleria fowleri, an amoebic microorganism, has carved a unique niche in the annals of medical microbiology as the notorious "brain- eating amoeba." This enigmatic single-celled organism has captured the fascination and concern of the medical community due to its rare, yet life-threatening, ability to infiltrate the human central nervous system.

Measuring just a few micrometers in size, Naegleria fowleri primarily inhabits warm, stagnant freshwater environments worldwide. Its modus operandi revolves around the nasal passages, as it can only infect humans when contaminated water enters the nose. Once this improbable journey begins, the amoeba's course is unrelenting.

Naegleria fowleri embarks on a relentless expedition, gaining access to the brain via the olfactory nerve. The ensuing neurological battle leads to primary amebic meningoencephalitis (PAM), a condition characterized by an explosive onset of symptoms. PAM's clinical presentation is both unique and terrifying, with symptoms encompassing severe headaches, fever, nausea, vomiting, neck stiffness, confusion, hallucinations, and seizures. Tragically, PAM often culminates in rapid neurological deterioration and, in the majority of cases, death within a matter of days.

While Naegleria fowleri's reputation is chilling, it's imperative to underscore its rarity. The majority of individuals exposed to this microscopic threat remain unaffected. Mitigating the risk involves adopting simple yet vital precautions such as nose clips or holding the nose shut during water activities in warm, stagnant environments. Furthermore, rigorous pool hygiene and appropriate chlorination are essential in minimizing the threat posed by this elusive amoeba.



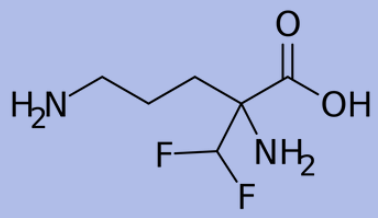



| Scientific classification | |
|---|---|
| Domain: | Eukaryota |
| Phylum: | Percolozoa |
| Class: | Heterolobosea |
| Order: | Schizopyrenida |
| Family: | Vahlkampfiidae |
| Genus: | *Naegleria* |
| Species: | ***N. fowleri*** |

In the realm of medical microbiology, Naegleria fowleri stands as an exemplar of the mysterious and potentially deadly entities that inhabit our world. Staying informed about the amoeba's characteristics and taking prudent preventive measures allows us to continue enjoying the wonders of freshwater environments while mitigating the risk of this enigmatic invader.

## DRUG MONOGRAPH - EFLORNITHINE

**P.Dasthagiramma II nd year Pharm D**




**BRAND NAME:** Iwilfin [1]
**GENERIC NAME**: Eflornithine.
**COMPANY:**US world Meds, LLC.
**DATE OF APPROVAL :**13/12/2023
**TREATMENT FOR:** Prevention of high risk neuroblastoma,Meningoencephalitic stage trypanosoma brucei gambiense infection[1],Hirsutism( under brand name vaniqua topical cream)[2],Sleeping sickness( under brand name ornidyl injection)[3],
**DOSAGE FORMS:** Tablets
**DOSAGES AVAILABLE:**
192 mg tablet PO QID
If Unable to tolerate 192 mg PO QID : Permanently discontinue
Continue for 2 years or until recurrence of disease or unacceptable toxicity
**CHEMICAL FORMULA:** C6H12F2N2O2.
**CLASS:** Class of organic compounds known as alpha amino acids.
**TREATMENT FOR:** Prevention of high risk neuroblastoma
Treatment of sleeping sickness, hirsutism on women face[2][4]
**CONTRAINDICATIONS:**
When taken orally the risk-benefit should be assessed in people with impaired renal function or pre-existing hematologic abnormalities, as well as those with eighth-cranial-nerve impairment. Adequate and well-controlled studies with eflornithine have not been performed regarding pregnancy in humans. Eflornithine should only be used during pregnancy if the potential benefit outweighs the potential risk to the fetus. However, since African trypanosomiasis has a high mortality rate if left untreated, treatment with eflornithine may justify any potential risk to the fetus.[5]

**PHARMACOLOGY:**

Eflornithine is an oral ornithine decarboxylase inhibitor used to reduce the risk of relapse in adults and children with high risk neuroblastoma who have demonstrated atleast a partial response to prior treatment with other agents, including anti- GP2 immunotherapy[

**Pharmacodynamics:**

Eflornithine is an irreversible inhibitor of ornithine decarboxylase ,which is the main enzyme involved in synthesis of polyamines, which are involved in cel growth and proliferation, including the transformation of normal cells into cancer cells.

Iwilfin also blocks MYCN gene, which is an oncogene

It works by inhibiting the above processes,supresses neuroblastoma tumor growth and formation.[6]

**Pharmacokinetics:**

**Absorption:**

Taken orally,peak plasma concentration is attained after 3.5 hours post dosing

**Distribution:**

volume of distribution is 24.3 L.

It does not specifically bind to human plasma proteins

**Metabolism:**

It is not known to metabolised and is primarily excreted unchanged in urine.

**Elimination :**

The terminal plasma elimination half life is 3.5 hours

Apparent steady state plasma T1/2 is 8 hours. Clearance is 5.3 L/h.

**ADVERSE DRUG REACTIONS:**

Low blood cell counts, failure of bone marrow to make enough blood cells,fever,cough, shortness of breath,blood in urine or stools,liver problems, hearing loss, pneumonia, diarrhoea, laboratory abnormalities,red and swollen eyes,chill or shivering,ear infections, allergic rhinitis.[1]

**USES:**

Hirshitism, sleeping sickness,high risk neuroblastoma

SPECIAL POPULATION:Pharmacokinetic analyses from patients in Study 14 suggested that age (1 year to 19 years), sex, or body surfacearea (0.4 m2 to 2m2), and mild hepatic impairment (bilirubin ≤ULN and AST>ULNor bilirubin >1 x ULN and any AST) had no clinically meaningful effects on eflornithine exposure. Renal Impairment

**References:**

**1.FDA Approved Drug Products: IWILFIN™ (eflornithine) tablets, for oral use [www.usworldmeds.com][www.iwilfin.com]**

**2.FDA Approved Drug Products: VANIQA™ (eflornithine hydrochloride) Cream 13.9%, for topical use["19th WHO Model List of Essential Medicines (April 2015)"(PDF). WHO. April 2015. Archived (PDF) from the original on May 13, 2015. Retrieved May 10, 2015**.

# Departmental Activities in June - 2023

## PERFECT CLICKS


**International Day Against Drug Abuse & Illicit Trafficking**


**International Yoga Day Celebrations**


**National work shop**


**Blood donar day**



**World Environment Day**