



“बेटी बचाओ, बेटी पढ़ाओ”

JAYOTI VIDYAPEETH WOMEN'S UNIVERSITY, JAIPUR
Faculty of Pharmaceutical Science

Faculty Name	- JV'n Prof. Dr. Dharmendra Ahuja (Professor & Dean)
Program	- 5 th Semester/3rd Year
Course	- B.Pharm
Session	- Pharmacology Practical

Academic Day starts with–

- Greeting with saying ‘**Namaste**’ by joining Hands together following by 2-3 Minutes Happy session, Celebrating birthday of any student of respective class and **National Anthem**

**Evaluation of Anti inflammatory activity in carrageen
an induced paw oedema**

Aim of the experiment

Evaluation of Anti inflammatory activity in carrageen an induced paw oedema

Introduction:

Plethysmometer is an specially designed equipment used to evaluate paw volume of rat while performing anti-inflammatory activity.

Principal

Inflammation is a protective response to injury. This happens in three stages:

a) The first stage is edema and swelling with accompanying pain. These effects are due to dilation and increased permeability of blood vessels (veins) due to the release of certain neurotransmitters such as histamine, serotonin and kinin etc.

(b) In the second step, leukocytes move to the area and the cleaning begins.

(c) The second phase is followed by repair initiated by fibroblast proliferation and connective tissue synthesis. The most widely used test to screen new NSAIDs is a test that allows a compound to reduce local swelling in a rat paw caused by various irritants. Many compounds, such as formalin, carrageenan, kaolin, yeast, and dextran, have been used as irritants to produce edema.

Instructions:

Twelve healthy male albino rats weighing 100-200 grams are selected and divided into two groups of six animals each. All animals fast for 18 hours. The hind foot of the rats is marked at the level of the tibial junction of the hind leg, so that the volume measurement is made at the same 22 level. Rats are administered 0.1 ml of 1-raragen on the plantar surface of the right hind limb to induce paw swelling. The volume is measured immediately and after 3 hours with a plethysmometer. One group serves as a control, orally administered 0.3 ml of normal saline. The second group receives the study drug, acetylsalicylic acid 300 mg/kg. After 30 minutes of drug administration, the change in paw volume was compared with control animals. The percentage of swelling compared to the study drug control.

Observation Table:

Vehicle Treated	Drug Treated	
		Average

Result:

In animals treated with the drug (acetylsalicylic acid), a decrease in the volume of the middle paw indicates an anti-inflammatory effect of the drug (acetylsalicylic acid).

- **Next Topic-**

- Pharmacology Experimentation Review

- **Academic Day ends with-**

National song 'Vande Mataram'