

CHAPTER 37

MEDICAL SCIENCES PHARMACOLOGY

Doctoral Theses

427. ANAND (Rashmi)
Experimental Studies on the Role of Opioids in Stress and Their Interactions With Nitric Oxide in Rats.
Supervisors : Prof. A. Ray and Dr. Kavita Gulati
Th 18104

Abstract

The present study is to evaluate possible opioid-NO interactions during stress responses. This is assessed by observing effects of opioid agonist and antagonists and their interactions with NO modulators on neurobehavioral, endocrinal, gastric, biochemical and immunological responses to the experimental stressor, restraint stress. Elevated plus maze and open field tests used to assess the neurobehavioral profile of animals under influence of anxiogenic/anxiolytic agents. It shows that restraint stress (RS) influences the behavioural pattern in rats in the elevated plus maze and increased aversion of open arms are indicative of an enhanced anxiety state.

Contents

1. Introduction. 2. Review of literature. 3. Materials and methods. 4. Drugs, chemicals and biologicals. 5. Results. 6. Discussion. 7. Summary and conclusions. References and Appendices.
428. KALRA NEE KHURANA (Sonam)
Study of Certain Anti-Inflammatory and Antioxidant Drugs on Experimental Models of Alzheimer's Disease in Rats.
Supervisors : Dr. P K Mediratta, Dr. K K Sharma and
Dr. B D Banerjee
Th 18105

Abstract

This study is to investigate the effects of curcumin, piracetam, alpha-lipoic acid and ibuprofen on cognitive function and oxidative stress in the above mentioned model of AD in rats. Hence these animal models of learning impairment and memory loss could help understand the pathogenesis of AD and give a hint to look for a path to successful treatment for AD.

Contents

1. Introduction. 2. Aims and objectives. 3. Review of literature. 4. materials and methods. 5. Results. 6. Discussion. 7. Summary and conclusions. Bibliography.

429. MITALI

Evaluation of Free Radical Mediated Impairment of Cardiovascular Functions on Mercury Exposure in Rats.

Supervisors : Dr. P K Mediratta and Prof. M Fahim
Th 18103

Abstract

This study is to investigate the toxic effects of organic and inorganic mercury after acute and chronic exposure on the cardiovascular system in rats. It contributed to assess the impairment of cardiovascular functions mediated through generation of oxidative stress or reactive oxygen species and also helped in evaluating the efficacy of melatonin, a potent antioxidant and free-radical scavenger against mercury intoxication. Melatonin supplementation is used to determine the reduction in magnitude of cardiac disorders on mercury exposure that helped in expanding conceptual framework about the neural regulatory control of cardiovascular system and its impairment on exposure to mercury as an environmental toxicant.

Contents

1. Introduction. 2. Review of literature. 3. Hypothesis. 4. Aims and objectives. 5. Materials and methods. 6. Results. 7. Discussion. 8. Summary and conclusions. 9. Bibliography. Appendices.

430. ROY (Vandana)

Essential Drug Concept as a Core of Drug Policy : Impact on Availability of Quality Drugs and Their Rational Use.

Supervisor : Dr. A K Agarwal
Th 18106

Abstract

Drug Policy based on the essential medicine concept in Government health facilities has improved the availability, accessibility, and quality of medicines. The medicines are being procured at low costs. The rational use of medicines however, requires improvement. Training programmes for health care providers and education of patients in proper use of medicines are urgently required. The efficiency of the procurement procedures needs to be improved by using a computerized inventory management system and electronic tendering processes. Greater effort on the part of the administration is necessary to fulfill all the objectives stated in the policy and maintain its sustainability.

Contents

1. Introduction. 2. Review of literature. 3. Aims and objectives. 4. Materials and methods. 5. Results. 6. Discussion. 7. Summary and conclusion. 8. Recommendations, Bibliography and Annexures.

431. SHARMA (Anu)
Effect of Polypharmaceutical Herbal Drug Lipotab in an Experimental Model of Heart Failure.
 Supervisors : Dr. K K Sharma and Dr. M Fahim
 Th 18102

Abstract

Lipotab observed to prevent LV remodelling and provide protection from experimental HF. Antioxidant and anti-inflammatory activity responsible for beneficial effects of Lipotab. Prophylactic treatment is found to be more effective than therapeutic treatment. Similar results are observed after fluvastatin treatment both in prophylactic and therapeutic regimens like, Lipotab treatments. Data suggests that Lipotab be an alternate to fluvastatin which is a synthetic drug. Data validates the use of this polyherbal formulation for cardiovascular disorders in traditional Unani system of medicine.

Contents

1. Introduction. 2. Aims and objectives. 3. Review of literature. 4. Materials and methods. 5. Results. 6. Discussion. 7. Summary and conclusion. 8. References. 9. Research paper.