

PRECLINICAL INVESTIGATION OF PIRACETAM AND BIOMATERIALS AGAINST ISCHEMIC REPERFUSION INJURY



Thesis submitted in partial fulfillment for the
Award of Degree

Doctor of Philosophy

By

Pankaj Paliwal

DEPARTMENT OF PHARMACEUTICAL ENGINEERING AND TECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY
(BANARAS HINDU UNIVERSITY)
VARANASI- 221005

Roll No. 14161007

2019

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Preface

The research work of the thesis entitled “Preclinical investigation of piracetam and biomaterials against ischemic reperfusion injury” is based on the identification of a novel therapeutic approach for the treatment of Ischemic reperfusion injury. The whole work has compiled into six chapters: Chapter 1 described the introduction of the topic and its importance. Chapter 2 investigated the pharmacokinetic and brain penetration study of piracetam in focal cerebral ischemic rats. Chapter 3 illustrated the study of pharmacological effect of barium containing bioactive glass (BaBG) and silver containing bioactive glass (AgBG) for the treatment of cerebral ischemic reperfusion injury. Chapter 4 investigated the acute and subacute toxicity studies of BaBG and AgBG in Wistar rats. Chapter 5 illustrated the study of the pharmacological effect of barium containing bioactive glass in ischemic and other gastro-duodenal ulcers. Chapter 6 summarized the entire study completed with its important outcomes.