phase, therefore it seems that DHC has better anti-inflammatory effect rather than analgesic effect. Doses of 50 and 75 induced some lethargy in the mice. DHC induced analgesia and anti-inflammation in hotplate and carrageenan test too. The result showed that DHC has a significant anti-inflammatory and antineurogenic effect and more effective compounds can be synthesized by modification of structure of this derivative.

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EFFECT OF REPEATED ANESTHESIA INDUCED BY THIOPENTAL IN THE NEONATE RATS ON CONVULSIONS INDUCED BY PENTYLENITRAZOLE AFTER MATURATION

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Anesthetics have some serious side effects. Previous studies showed controversial (neurodegenerative or neuroprotective) effects of barbiturates. NMDA receptors blockers or GABA receptors agonists during the critical period of development can involve in the brain development and synaptogenesis. This critical period in different species will be different and in rats it begins from 2 days before parturition and can last until 14 days after birth. The purpose of this study was to investigate the relation between postnatal repeated induced Thiopental anesthesia and Pentylentetrazole (PTZ) induced convulsions after maturity. Wistar male neonates rats (n=20) were divided into experimental and control groups. The experimental group was deeply anesthetized with Thiopental (daily) since 10 to 20 days of postnatal period, after maturation PTZ was injected (45 mg/kg/p) to assay the sensitivity of mature rats to PTZ induced seizures and latent period for seizures expression after injections was determined in both groups. Results did not show significant difference in latent’s periods between experimental and control animals. Drugs which affect the excitatory or inhibitory receptors can show neurodegenerative effects in the critical periods of brain development but regard to Thiopental; these effects may be regenerated during growth and maturity. Also it is possible that such effects are remained for the other behaviors, it remained to be investigated in more detail.

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INFLUENCE OF GENDER AND ESTROUS CYCLE ON THE LOCAL ANESTHETICS (LIDOCAINE) EFFECT IN THE FORMALIN TEST MODEL IN RATS

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Clinical and experimental studies have found that there are sex and gender differences in pain and analgesia, in addition to pain perception. Gender-related differences in the responses of males and females to analgesic effects have been reported. The purpose of this study was to assess the effects of gender and circulating gonadal hormones (estrous cycle) on local anesthetics effects during the process of formalin induced inflammation. Formalin test is a widely used animal model of persistent pain. Lidocaine injected before, after and simultaneously with formalin administration. Before antineuroceptive testing began, vaginal smear cytology and uterine tube weight is used for the determination of the estrous cycle phases. The results of these investigations demonstrated that: the magnitude of local anesthetics effects is correlated with gender and phases of estrous cycle. The effectiveness of the local anesthetics to produce anti nociception was influenced by the sex of the rat and the estrous cycle. In male rats, lidocaine was significantly more effective than female rats. In the present investigation comparison between cycling female have shown that lidocaine was generally more effective in diestrus1, during which progesterone is elevated while estrogen and LH levels are low, and least effective in proestrus, during which estrogen peak.

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EVALUATION OF CHRONIC PAINS IN ELDERLY AGE

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Previous studies suggest that more elderly population is suffering from the chronic pain, and need drug treatment permanently. Also the pain incidence have been reported in 20% of elderly people after the age of 65 years that can reduce quality of life, inability to perform daily living activities, fatigue, sleep disorders and so on. The purpose of this study was to evaluate chronic pain condition in the elderly age in Semnan. This field trial study was conducted on 116 elderly persons (over 65 years old). Data was collected by visiting elderly persons in their homes selected