and more effective compounds can be synthesized by modification of structure of this derivative.

P-637

Synthesis and study the analgesic and anti-inflammatory effects of rigid benzofurane 3, 4 dihydroxy chalcon (DHC) in mice

Heidari MR[1], Foroumadi A[2], Asadipour A[3], Norouzi H, , Shahnavaz S, Vafazadeh J, Heidari M, Azimi F

1 Faculty of Pharmacy, Pharmaceutics, Neuroscience and Physiology Research Centers, Kerman University of Medical Sciences, Kerman, Iran.
2 Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran.
3 Pharmaceutics Research Center, Keraman Faculty of Pharmacy, Kerman, Iran.
E-mail:heidarimr@kmu.ac.ir

According to bibliography on the structure activity relationship it seems that the rigid Benzofuran dihydroxy chalcon (DHC) may be more effective on pain and inflammation. In this study the Rigid benzofuran DHC were synthesized and the analgesic and anti-inflammatory effect of different doses 12.5, 25 and 50 mg/kg of it, was evaluated by formalin Hot-Plate and caregeenan tests, in group of 7 mice. The result showed that, 3,4-DHC with dose of 25 mg/kg induced Significant antinociception and anti-inflammation compared with control group. In additon the effect of DHC was higher in the chronic phase of formalin test, therefore it seems that DHC has better anti-inflammatory effect rather than analgesic effect. The dose of 25 mg/kg of DHC induces significant analgesia in Hot-Plate test and antiu-inflammatory effect in carageenan test too. The doses of 25 and 50 mg/kg, induced lethargy in mice. The result showed that with modification of structure of the DHC, this derivative has potential for more studies as a lead compound.

P-638

Study the anticonvulsant effect of methanol extract of *Tilia plathyphyllos* Scop. in mice

Heidari MR[1], Mehrabani M[2], Moghadammanesh H[2], Vafazadeh J, Sepehri S, Mahdavi Z, Heidari M, Hosseini A

1 Department of Pharmacology and Toxicology, Faculty of Pharmacy, Neuroscience, Physiology and Pharmaceutical Research Centers, Keramn University of Medical Sciences Kerman, Iran.
2 Pharmaceutics Research Center, Keraman Faculty of Pharmacy, Kerman, Iran.
E-mail :heidarimr@yahoo.com & heidarimr@kmu.ac.ir

Effects of Medicinal herbs on nervous system have been known for many years. In this investigation, the effects of methanolic extract of *Tilia plathyphyllos* Scop. on seizure induced by picrotoxin and pentylene tetrazole were studied in mice. In first phase, the study was performed on three groups of animals pretreated by methanolic extract of this plant *via* intraperitoneal injection. After 20 minutes each animal received picrotoxin 10 mg/kg or pentylentetrazole 80 mg/kg for induction of seizure. Latency of onset time for beginning of seizure, duration of seizure and mortality were determined. The results for showed that latency of seizure was increased in groups that pretreated with different doses of extract.

P-639

Mogoltacin enhances vincristine cytotoxicity in human transitional cell carcinoma (TCC-5637 cell line)

Behnam Rassouli F[1], Moghadam Matin M[1], Iranshahi M[2], Bahrami AR, Neshati Z

1 Biotechnology and Tissue Engineering Research Center, Department of Biology, Faculty of Science, Ferdowsi University of Mashhad, Mashhad, Iran.
2 Department of Pharmacognosy and Biotechnology, Biotechnology Research Center, Faculty of Pharmacy, Mashhad University of Medical Sciences, Mashhad, Iran.
Email:fatemehbehnam@yahoo.com

Human Transitional Cell Carcinoma (TCC) are epithelial-like adherent cell line originally established from primary bladder carcinoma. The current study was carried out to investigate the effect of Mogoltacin, a new Sesquiterpene-Coumarin on TCC cells. mogoltacin was isolated from the fruits of *Ferula badrakema* for the first time, using silica gel column chromatography and preparative thin layer chromatography. mogoltacin did not has any significant cytotoxicity effect on neoplastic TCC cells at 16, 32, 64, 128, 200 and 600 µg mL-1 concentrations. In order to analyze its combining effect, TCC cells were cultured in the presence of various combining concentrations of mogoltacin and vincristine. Then cells were observed for morphological changes (by light invert microscopy) and cytotoxicity using MTT assay. The effect of mogoltacin on vincristine toxicity was observed after 24, 48 and 72 hours of drug administration. MTT assay results were confirmed the morphological observations statistically. Results revealed that after 48 hours of combination of 40 µg mL-1 vincristine with 16 µg mL-1 mogoltacin, the cytotoxicity of vincristine increased 32.8%.

P-640

Evaluation the effect of minocycline on morphine induced physical dependence in rat

Abizadeh B[1], Samadi H[1], Habibi Asl B[2], Hassanzadeh K, Charkhpour M, Sadegh Amiri O

1 School of Pharmacy, Tabriz University of Medical Sciences Student Research Committe(SRC).
2 Department of Pharmacology and Toxicology, School of Pharmacy, Tabriz University of Medical Sciences.
Email:b.abizadeh@yahoo.com

Chronic administration of opiates leads to physical and Psychological dependence. The main goal of this study was to investigate the effect of minocycline on morphine induced physical dependence in rat. Different groups of animals were rendered and received increasing doses of morphine (5,10,15,20,25 mg/kg/12 h, SC) in combination with saline (10 mg/kg, IP) or minocycline (10,20,40 mg/kg, IP) for 9 days. At the last day one hour after morphine administration naloxone (4 mg/kg, IP) was injected and withdrawal signs (Jumping, Abdomen Writhing, Wet dog shake, Standing on feet) were recorded. Results showed that injection of naloxone after chronic morphine administration induced withdrawal signs in comparison with saline group which did not receive morphine.

P-641

Low doses of nitroglycerine could attenuate tolerance to the analgesic effect of morphine in mice

Samadi H[1], Abizadeh B[1], Habibi Asl B[2], Hassanzadeh K, Charkhpour M

1 Student Research Committe (SRC) School of Pharmacy, Tabriz University of Medical Sciences.
2 Department of Pharmacology and Toxicology, School of Pharmacy, Tabriz University of Medical Sciences.
Email:dr.haniehsamadi@yahoo.com

The aim of this study was to evaluate the effects of different doses of nitroglycerine (NTG) on tolerance to the analgesic effects of morphine in mice. In the present study different groups of mice received morphine (50 mg/kg, IP) + saline (10 ml/kg), morphine (50 mg/kg, IP) + NTG (0.1-15 mg/kg, IP), morphine (50 mg/kg, IP) + NTG (1-15 mg/kg, IP) + MK 801 once a day for five days. Tolerance was assessed by administration of morphine (9 mg/kg, IP) on sixth day using Hot-Plate test. Results showed that high dose of NTG (10,12.5,15 mg/kg, IP) increased.

P-642

Effects of pharmacologic preconditioning by natural honey on hemodynamic factors and infarct size in isolated hearts

Mehdizadeh Aghdam E[1,2], Najafi M[2], Rafie F[1,2]

1 Student Research Center (SRC), School of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran.
2 Department of Pharmacology, School of Pharmacy, Tabriz University of Medical Sciences, Tabriz, Iran.
Email:aghdamelnaz@gmail.com

Preconditioning is a process triggered by brief ischemia which enables hearts to resist against injuries of prolonged period of ischemia. Short-term application of drugs (pharmacologic preconditioning) showed protective effects against ischemic injuries too. We desired to checkup the effects of short-term application