model. Forty male rats aged 4 months were divided equally into four groups; the control group received physiologic saline (10 ml/kg) and the ethanol group had taken 1 ml (per rat) absolute alcohol by gavage. The third and fourth groups also received NS (500 mg/kg) and TQ (10 mg/kg) by gavage 1 h before alcohol administration, respectively. Gastric damage was confirmed histomorphometrically by significant increases in the number of mast cells (MC) and gastric erosions in ethanol treated rats. The NS treatment significantly decreased the number of MC and reduced the area of gastric erosions. Likewise, TQ treatment was also able to reduce the number of MC and the gravity of gastric mucosal lesions, but to lesser extent compared to NS. Gastric tissue histamine levels and myeloperoxidase activities were found to be increased in ethanol treated rats, and NS or TQ treatment reversed these increases. Results obtained from this study suggest that both drugs, particularly NS could partly protect gastric mucosa from acute alcohol-induced mucosal injury, and these gastroprotective effects could be due to their antiproteolytic, antioxidant and antihistaminic effects.

PP-787
3-FABS: a versatile NMR-based functional screening method
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3-FABS (three Fluorine Atoms for Biochemical Screening) is a versatile, reliable NMR-based functional screening method for the identification of enzyme inhibitors and for the accurate measurement of their potency. The method can be applied in a primary screening for the identification of hits against a pharmaceutical relevant target and in the hit to lead phase optimization process. The focus of this poster is to provide a comprehensive insight into the 3-FABS methodology and some of its applications to the detection of inhibitors of different drug targets. The method requires the labeling of the substrate with a CF3 moiety, located either near or far from the modification site. 19F-NMR spectroscopy is then used to detect and quantify the signals of the substrate and of the product of the enzymatic reaction; the possibility of monitoring both signals in a non-destructive way allows one to derive properties of complex enzymatic reactions and mechanisms of inhibition. A significant advantage of this methodology is the possibility of directly monitoring the real concentration, stability and solubility of the screened compounds and therefore determine their real strength. Other applications of 3-FABS include the identification of new drug targets and the creation of the selectivity profile of an inhibitor toward different enzymes of the same class. The speed and easy set-up of 3-FABS can have a major impact in the drug discovery process for discovering new clinical candidates.

PP-789
Purification of human erythrocytes 6PGDH enzyme, research the effects of some drugs on enzyme activity in vitro, in vivo
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In this study, 6-phosphogluconate dehydrogenase was purified in human erythrocytes. This process was carried out by the preparation of hemolysate, precipitation by (NH4)2SO4 and 2', 5'-ADP Sepharose 4B affinity chromatography. The degree of purity of the enzyme was determined with SDS-PAGE electrophoresis. The effects of some drugs on the enzyme were investigated in vivo and in vitro. Human erythrocyte 6PGD was purified in 742-fold in the end of all purification process. The recovery of 6PGD was 50%, and its specific activity was 0.46 U/mg in erythrocytes. Enzyme activity was spectrophotometrically measured. Fluorouracil, cisplatin, menadione sodium bisulfide, piroxicam, tenoxicam, ketoprofen and metilgobazin maleat inhibited the enzyme activity in in vitro conditions, while adrenalin, midazolam, phentanyl, dexametasone sodium fosfat and pentoxifyllin did not have any effect on enzyme activity. 150 values of the drugs inhibiting in vitro were determined. For the drugs having low 150 values (fluorouracil, cisplatin, menadione sodium bisulfide, piroxicam and ketoprofen), in vivo studies were performed in New Zealand albino rabbits. In the evaluation of the in vivo effects of the drugs on 6PGD activity; it was observed that at the first hour fluorouracil, ketoprofen and piroxicam; at the third hour fluorouracil, ketoprofen, piroxicam, menadione sodium bisulfide and cisplatin; and at the fifth hour fluorouracil and cisplatin significantly inhibited 6PGD activity.

PP-788
The effects of compound of C1, indomethacin, nimesulide and rofecoxib on COX and NO, in vivo and in vitro
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The aim of this study was to investigate the effects of 3-benzyol-1-ethyl-4-phenyl-4-piperidinol hydrochloride (C1), which is a structural and also non-classical isomer of bis Mannich base B1, on cyclooxygenases (COX) activities and nitric oxide (NO) levels in 48 rats with inflammation by using carrageenan-induced paw edema and to compare its effect with other NSAIDs. C1, at the doses of 50 100 and 200 mg/kg, significantly decreased COX-1 and COX-2 activities as compared with the control group, whereas it significantly reduced NO levels only at 50 mg/kg dose. While the inhibitory effect of nimesulide on COX-1 and COX-2 activities were insignificantly less than that of C1 at all doses, this effect for NO levels was insignificantly more than that of C1. C1, at 200 mg/kg dose, significantly inhibited COX-1 and COX-2 activities in comparison to rofecoxib, but its effect on NO was not significantly different from rofecoxib. NO levels were higher in the rats given C1, at doses of 50 and 100 mg/kg, than rofecoxib-given ones. Indomethacin significantly reduced both COX-1 and COX-2 activities and NO levels compared to C1 at doses of 50 100 mg/kg. In conclusion, it might be claimed that C1 has an antiinflammatory effect, and its COX-2 selectivity is stronger than indomethacin and nimesulide but weaker than rofecoxib. In addition to COX inhibition, the role of NFκB and other transcription factors should be investigated to clarify the mechanisms of antiinflammatory effect of C1.