G02
Effects of polyvalent antivenom on acute-phase response induced by Hottentotta saulcyi and Mesobuthus eupeus scorpion venom in rats

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Scorpion venom can induce systemic alterations similar to those observed in acute-phase inflammatory response. In the present study, we report the changes of some indicators of inflammation and acute-phase response in serum induced by Hottentotta saulcyi and Mesobuthus eupeus. In addition the role of polyvalent antivenom on these findings is also studied. For this study 100 male Wistar rats were divided into five equal groups randomly. Groups 1 and 2 received H. saulcyi venom (1.1 mg/kg) with and without antivenom respectively. Groups 3 and 4 also injected with (1.4 mg/kg) of M. eupeus venom with and without antivenom respectively. Group 5 injected with normal saline as control group. Blood samples were taken at 0.5, 1, 3 and 6 h after venom injection. Results showed that both scorpions' venom elicited quite similar responses in most assays in rats. Responses included increased C-reactive protein, increased plasma fibrinogen, systemic leukocytosis with a predominance of polymorphonuclear cells. Time-course analysis of these effects showed that responses are most pronounced on the first hours after envenomation. However, leukocytosis and changes in acute-phase protein concentrations can be observed up to 24 h after envenomation. Leukocyte parameters, CRP and plasma fibrinogen were reversed when SAV was given 20 min after envenoming.

Keywords: Scorpion venom; Acute-phase response; CRP; Rat

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G03

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El-Minya City lies in the middle of Egypt between the Nile River and the Ibrahimiya Canal and considered as a market and financial center for its region. There were no previous studies on pollution caused by Gasoline exposure in El-Minya Governorate in Upper Egypt. So we tried in this study to concern on the effect of air pollution from automobile exhaust in El-Minya. Unleaded gasoline was introduced in the greater area of El-Minya, 10% of the total sales of gasoline was unleaded. In this study, blood lead levels, liver function, kidney function, and hematological parameters were measured in groups of professionals exposed occupationally to polluted air with heavy traffic or gasoline fumes.

According to the present study, we found a significant difference in blood lead levels in each of the exposed groups and an increase in hemoglobin level in all tested groups. On the other hand, creatinine level shows decrease significant in all tested groups, increase SGOT and SGPT levels in gas station employees and taxi drivers and increase SGPT in bus drivers. On the other hand, there is no significant in SGOT level in bus driver. Perhaps the elevated transaminases resulted from exposure of gas station employees to hepatotoxic constituents of gasoline.

Keywords: Gasoline; El-Minya Governorate; Gas station employee; Taxi drivers; Bus drivers
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G04
Determination and quantitation of clozapine and its metabolites in plasma by HPLC

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Clozapine is classified structurally as a dibenzodiazepine derivative. It is known as an atypical anti-psychotic agent with proven efficacy in the management of treatment-resistant schizophrenia and other psychotic disorders. Despite its high anti-psychotic and therapeutic potential, wider use of clozapine has been limited by the high risk of agranulocytosis which makes frequent hematological monitoring and drug monitoring necessary. Clozapine is extensively metabolized in the liver by cytochrome P450 enzymes yielding several derivatives, mainly N-desmethylclozapine (norclozapine) and clozapine-N-oxide. This study intends to determine and quantify the levels of free clozapine and its metabolites in human plasma aiming for clinical contribution. For this purpose, a simple and reliable HPLC method for analyzing the concentrations of clozapine and its two major metabolites in human plasma was developed. An isocratic high-performance liquid chromatography method with ultraviolet detection at 220 nm was utilized. Analytes are concentrated from plasma by liquid–liquid extraction with ethyl acetate, n-hexane and isoamyl alcohol (80:15:5, v/v/v) which allows to obtain good extraction yields (>80%) for all analytes. The analytes were separated on a C18 reversed-phase column using a mobile phase composed of acetonitrile, 62.4 mM phosphate buffer containing 0.3% triethylamine at pH 4.5. The relative standard deviations for between and within-day assays were less than 4% for low concentrations of all analytes. The method was specific and sensitive with detection limits of 23.6 ng/mL, 19.3 ng/mL and 23.6 ng/mL for clozapine, N-desmethylclozapine and clozapine-N-oxide respectively. The procedure described is relatively simple, rapid and applicable to pharmacokinetic studies and routine therapeutic drug monitoring.

Keywords: HPLC; Clozapine N-desmethylclozapine; Clozapine-N-oxide; Plasma
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G05
Quetiapine treatment in resistant depression: A prospective study

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Aim: Rationale therapy of resistant depression (TRD) is an important clinical problem, and represents a considerable challenge to