









Bank workers. In the following, the findings of this study are presented, interpreted, and compared with the results of other researchers.

#### 4. Results

Aminotransferase enzymes are examined as the exclusive indicators of the necrosis of liver cells (hepatocytes) in order to diagnose liver diseases in the two groups. The results of the comparative analysis of the data regarding the level of AST (or SGOT) and ALT (or SGPT) enzymes in the blood samples of the workers of the power plant and Mehr Bank are plotted in diagram 1 and 2, respectively. Based on diagram 1, there is no significant difference in the level of SGOT enzyme ( $P > 0.05$ ); however, this parameter clearly tends to increase in the blood samples of the power plant workers in comparison with the workers of Mehr Bank. According to diagram 2 however, the level of the SGPT enzyme is significantly higher ( $P < 0.05$ ) in the blood samples of the power plant workers in comparison with the control group (the workers of Mehr Bank). The comparative analysis of the red blood cell (RBC) count, the amount of hemoglobin (Hb), the percentage of hematocrit (HCT), the mean corpuscular hemoglobin (MCH), the mean corpuscular hemoglobin concentration (MCHC), the red blood cell distribution width (RDW), and the mean corpuscular volume (MCV) in the blood samples of the power plant and Mehr Bank workers are illustrated in diagrams 3 to 9 respectively. The two groups did not have any significant difference in the RBC, Hb, HCT, and MCV parameters ( $P > 0.05$ ); however, the MCH parameter for the power plant group is significantly lower ( $P = 0.0897$ ) than the data obtained for the Mehr Bank workers. There were significant differences in the MCHC and RDW parameters between the two groups ( $P < 0.05$ ). The comparative analysis of the white blood cell (WBC) count, the relative number of neutrophils (Ne), the percentage of lymphocytes (Ly) and monocytes (Mo) in the blood samples of the power plant and Mehr Bank workers are plotted in diagrams 10 to 13 respectively. The results indicate no significant differences in the total number of white blood cells between the two groups ( $P > 0.05$ ); but the relative number of neutrophils and monocytes (based on a percentage of the total number of leukocytes) in the blood samples of the power plant personnel is significantly lower than Mehr Bank workers and the relative number is significantly higher ( $P < 0.05$ ). The results of the comparative analysis of blood platelets are given in diagram 14. It is evident in the diagram that the number of platelets in the blood samples of the power plant personnel show no significant difference from the data obtained for Mehr Bank workers (the control group) (Figures 1-14).

#### 5. Discussion

In accordance with our findings, Chakir *et al.* [21] also reported no significant change in the platelet count of the whole blood samples taken from female Wistar rats after exposure to low-frequency magnetic fields. Much like the findings of the experiment at hand, Chakir *et al.* [21] did not observe any significant

















