

عنوان مقاله:

Alterations in Interleukin- λ , High Sensitivity C-reactive Protein and Some Hematological Parameters Uncover Ongoing Pathologic Process in Bakery Workers Exposed to Flour Dust

محل انتشار:

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خلاصه مقاله:

Background: Exposure to flour dust has been linked to the emergence of respiratory symptoms. This study assessed the levels of some inflammatory markers and hematological parameters among bakery workers exposed to flour dust in Ota, Nigeria. Methods: A total of 100 participants (50 bakery workers with exposure to flour dust and 50 non-bakery workers without such exposure) took part in this study. The participants' peak expiratory flow rate was measured using a peak flow meter. Blood samples were assessed for high sensitivity-CRP, interleukin- λ , and a complete blood count. The collected data was analyzed using SPSS version 23.0. Results: The outcomes revealed that bakery workers demonstrated significantly ($p \leq 0.05$) elevated levels of high sensitivity-CRP, interleukin- λ concentrations, red blood cells, hemoglobin concentration, packed cell volume, platelets, and lymphocytes compared to non-bakery workers ($p \leq 0.05$). Meanwhile; the mean absolute neutrophil count and neutrophil-lymphocyte ratio of the bakery workers were found to be significantly ($p \leq 0.05$) lower compared to non-bakery workers. Conclusion: This study underscores the health risks faced by bakery workers exposed to flour dust, as evidenced by alterations in inflammatory markers and hematological parameters. These findings highlight the ongoing pathological processes induced by flour dust exposure, emphasizing the need for preventive measures and occupational health interventions in bakery settings. Enhanced awareness and protective measures are imperative to mitigate the adverse health effects associated with flour dust exposure in occupational environments. Further research is warranted to elucidate the mechanistic pathways underlying these observed alterations and to develop targeted interventions for mitigating occupational health risks in bakery workers.

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