Reference values of leucocytes explorations for the diagnosis of primary immunodeficiency diseases in Moroccan population

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Primary immunodeficiency diseases (PIDs) represent a large and heterogeneous group of more than 120 different entities, most of which have now been genetically characterized. In the suspicion of immunodeficiency, the exploration of the blood lymphocyte subpopulations is the basic tools in the diagnostic process of PIDs. However, the reliable interpretations of the data resulting from this exploration require comparison of patient’s results to reliable reference values. The routinely used reference values are established within representative populations of healthy subjects. Values for Caucasian cohorts are usually utilized, but could be inappropriate for Moroccan population. Furthermore, the biological explorations of the PIDs essentially concern patients suffering from evocative clinical manifestations of PIDs. However, the pathological mechanisms associated with these clinical manifestations can affect the values of the explored parameters even in patients with non-PIDs diseases. The aim of this study is to establish the age-matched normal reference values of blood lymphocyte subpopulations for Moroccan population and to verify the accuracy of these reference values for the diagnosis of PIDs affection. We measured lymphocyte subpopulations concentrations by flow cytometry for 75 healthy subjects and 322 non-PIDs patients suffering from distal interphalangeal joints (DIPs) - evocative clinical manifestations. We first compare the normal reference values of our population to those of other populations. We also compare values from patients with non-PIDs diseases to the normal reference values. Moroccan normal reference values show to be slightly different from those of other populations. Furthermore, values from 44% of non-PIDs patients are significantly lower than normal reference values. These results have an important interest in the improvement of the interpretation of the lymphocyte subpopulations concentrations values surrounding the threshold values of the references intervals routinely used in the diagnosis of PIDs within Moroccan population.

Biography
Dong-Min Kim is a Professor in the Department of Internal Medicine of Chosun University Hospital and Chosun University College of Medicine, Korea. His research interests include clinical manifestations of Rickettsial diseases and mechanisms of antimicrobial resistance, clinical manifestations of marine bacteria, especially those of the genus Vibrio, Shewanella.

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