SUMMARY AND CONCLUSIONS

Human CMV is a member of the herpes virus family, associated with a variety of clinical syndromes, ranging from mild subclinical infection to severe congenital anomalies and interstitial pneumonia in immunocompromised patients.

It is a major pathogen responsible for significant morbidity and disease in utero and in new borns.

The aim of this work was to study some hematological parameters in a viral infection namely CMV infection in childhood to reveal any hematological changes occurring in those infected with this virus. It also aimed to assess the relative frequency of human CMV in a population of Egyptian infants and children.

This study was performed on a group of 100 patients attending the hepatology outpatient clinic in the Pediatric Department of Banha University. Ten normal age and sex-matched children were chosen as controls.

Full history taking and clinical examination was done as well as routine laboratory tests, a hemogram, serological test for anti-CMV IgM, leukocytes function using nitrobluetetrazolium to test ingestion and opsonization were done. Bone marrow puncture was performed for 10 cases.

The present study revealed 32 cases out of 100 cases were +ve for anti-CMV IgM using Imx system with the highest percentage of positivity in group IIb (fever + hepatomegaly aging 3-6 years) and group IIIb (fever + HSM aging 3-6 years).

Our study also revealed statistical drop in the hemoglobin level as well as RBCs count. The platelet count was within normal range with statistical significant drop in platelet counts of group III (fever + HSM).

Whereas the total leukocytic count, absolute polymorphonuclear leukocytes and absolute atypical lymphocytosis (the hallmark of CMV mononucleosis) were in accordance with CMV infection.

As regards, the nitroblue tetrazolium test, the most affected group was group III with fever and hepatosplenomegaly and showed statistical drop in the reduction of the percentage of segmented neutrophils to reduce the dye in both age groups.

The main morphological findings of the bone marrow picture of + ve cases for CMV IgM was mainly erythroid hyperplasia, slight dyserythropoiesis and the bone marrow picture together with the clinical picture was compatible with hypersplenism.

So we recommend the use of full hematological study for reaching a definitive diagnosis of CMV infection and probably other viral infection. This will help to overcome the hazards of CMV especially on bone

marrow cells and also will overcome the overlap of clinical features of some viral infections and other associated diseases. So whenever we find variation in the hematological parameters, we should consider in our mind CMV infection as the frequency of CMV infection is quite abundant.