

Molecular Screening for Malaria among Blood Donors in a WHO Claimed Region of Egypt, Fayoum Governorate

Abstract:

Background: Transfusion-transmitted malaria is undoubtedly a potential health hazard for blood recipients. Egypt is still on the prevention of reintroduction phase of malaria control program. Fayoum Governorate is considered one of the high-risk foci in Egypt due to its geology. However, no studies have been reported to evaluate the current status of subclinical *Plasmodium* infection based on sensitive molecular techniques. Moreover, screening of malaria is not listed within screening protocols of blood-borne pathogens in Fayoum blood banks. **Objective:** To assess the current prevalence of subclinical *Plasmodium* infection among blood donors of Fayoum inhabitants for transfusion biosafety. To predict any possibility of the reemergence of malaria in the governorate and the effectiveness of malaria control measures. **Methods:** A cross-sectional survey was conducted on 400 apparently healthy blood-donors in blood transfusion center of Fayoum University hospital from Jun 2012 to Jan 2013. Conventional PCR was used to detect the 18 S ssrRNA *Plasmodium* gene. **Results:** All Fayoum inhabitants' blood donors' samples were negative for *Plasmodium* infection. **Conclusions:** Current applied control, and preventive measures are valid in the context of blood transfusion biosafety in Fayoum blood banks and, therefore, the implementation of a routine malaria screening test in Fayoum blood banks is not merited at this time.

Mediterranean Journal of Hematology and Infectious Diseases (Full article) 2017; 9; e2017065.

ISSN: 2035-3006