

Infectious Diseases Congress 2018 : Co-existence of Dengue Fever & Malaria in thrombocytopenic patients presented with Acute febrile illness: Ali Mohammad: Oman Medical College, Oman**Ali Mohammad***Oman Medical College, Oman***Introduction**

Dengue fever and Malaria are the most well-known arthropod-borne sicknesses in people and speak to significant general medical issues. Dengue infection (family Flaviridae, sort Flavivirus) and Plasmodium parasites are broad in American and Asian tropical districts and their endemic zones cover widely. By the by, reports of jungle fever and dengue double disease are scant. Since the principal case detailed in 2005, just case-reports and two unmistakable investigations have been distributed. They have been accounted for with Plasmodium falciparum and additionally Plasmodium vivax in India and Pakistan, Southeast Asia, French Guiana and Brazil. This marvel is by all accounts extraordinary. In an examination acted in Thailand among 194 patients with dengue, no co-contamination with intestinal sickness was found, yet in French Guiana, a review study acted in 2004–2005 on 1,723 back to back febrile crisis patients discovered 17 co-diseases, including six intense simultaneous contaminations (for example 1% of dengue and 4% of jungle fever cases). The impact of co-diseases on seriousness isn't clear, hence, the point of this investigation was to separate clinical and natural image of co-contaminations from contaminations alone and decide if patients tainted by both jungle fever and dengue (MD) were more extreme than either contamination alone (individually M and D). Insusceptible thrombocytopenic purpura (ITP) is an immune system pathology described by a low platelet check, purpura and hemorrhagic scenes brought about by antiplatelet autoantibodies. The conclusion is normally made by the prohibition of the known reasons for thrombocytopenia. IgG autoantibodies sharpen the flowing platelets. It prompts quickened expulsion of these cells by antigen-introducing cells (macrophages) of the spleen, and at times the liver or different parts of the monocyte-macrophage framework. Bone marrow remunerates the platelet annihilation by expanding platelet creation. ITP frequently happens in solid youngsters and youthful grown-ups inside half a month following a viral

contamination. ITP is typically sensible with immunosuppressive treatment. An indistinguishable type of immune system thrombocytopenia can likewise be related with incessant lymphocytic leukemia, lymphomas, SLE, irresistible mononucleosis and other bacterial and viral diseases. Certain medications can likewise cause insusceptible thrombocytopenia unclear from ITP. Most youngsters include unconstrained reduction inside half a month or months, and splenectomy is infrequently required. Anyway youthful grown-ups once in a while have unconstrained reductions requiring splenectomy inside the initial scarcely any months after finding. ITP can happen with contaminations (e.g., human immunodeficiency infection), threat (e.g., adenocarcinoma and lymphoma), and basic variable immunodeficiency and immune system maladies (e.g., fundamental lupus erythematosus, immune system hepatitis, and thyroid ailment). By one way or another in these sicknesses, there is an arrangement of hostile to platelet antibodies prompting platelet pulverization. Medications may likewise cause immune system thrombocytopenia, for instance, acetazolamide, anti-inflammatory medicine, aminosalicic corrosive, carbamazepine, cephalothin, digitoxin, phenytoin, meprobamate, methyl dopa, quinidine, rifampin, and sulfamethazine. ITP can be isolated into two characterizations; intense and incessant. The intense structure presents in adolescence, influences both genders and might be introduced by a viral disease. Most youngsters (85%) have an amiable course and don't require treatment. They can suddenly recoup inside a quarter of a year. The constant structure influences people between ages 20-50 years; there is a female/male proportion of 3:1 and It is typically not gone before by a viral contamination. It might give scenes of seeping by months or years, during that time the platelet tallies are near ordinary. Less than 10% of youngsters create interminable ITP. HIV-related infection is currently the most well-known reason for thrombocytopenic purpura, particularly in guys somewhere in the range of 20 and 50 years old. Testing for HIV antibodies is a basic piece of the

appraisal of ITP.[4][5]. The irresistible causes and the study of disease transmission of intense febrile sickness (AFI), characterized as ailment of < multi week term with no recognized source, remain inadequately portrayed in numerous pieces of the world.^{1,2} Previous examinations acted in Egypt indicated that contaminations, for example, salmonellosis (5%), typhoid fever (18%), and brucellosis (11%), were regular reasons for AFI.³ In South America, contaminations with *Leptospira*, intestinal sickness, *Rickettsia*, dengue infection, and Venezuelan equine encephalitis infection were distinguished as major AFI causes.⁴ In certain districts, for example, sub-Saharan Africa and Southeast Asia, sentinel emergency clinic based investigations have been set up to acquire clinical and general wellbeing information about the reasons for AFI consistently and to distinguish weakness designs and clinical indicators. The weight of dengue is unsure, in spite of the fact that accepted to be generous all through the tropics and the significance of different irresistible infections, for example, leptospirosis is vague. Absence of data about the particular etiologies that make up the differential finding of dengue eases back our capacity to cause precise determinations, to give viable treatment, and successfully target general wellbeing measures. In Puerto Rico, dengue is endemic consistently; be that as it may, dengue infection (DENV) transmission increments during the time of expanded surrounding temperatures and precipitation, which starts in June and reaches out until November. The Centers for Disease Control and Prevention (CDC), in a joint effort with the Puerto Rico Department of Health (PRDH), has been leading detached dengue reconnaissance (PDSS) for over 3 decades. This framework records ~3,000–5,000 speculate cases in non-scourge years and up to 25,000 in late pandemics. In any case, what isn't known is how much dengue is under-distinguished or revealed among instances of AFI, and the occurrence of frustrating cases, for example, leptospirosis or flu. Luckily, intestinal sickness is not, at this point endemic in Puerto Rico for what it's worth in neighboring islands, and infections related with poor sanitation, for example, typhoid fever, are phenomenal.

Abstract

Background & Aim: Dengue fever and malaria both can present with thrombocytopenia and is regarded as a strong predictor of dengue fever. Thrombocytopenia is also considered criterion of disease severity, bad prognostic factor and its presence is associated with increase probability of malaria. The study aims to determine frequency of co-existence of dengue fever and malaria in thrombocytopenic patients presented with acute febrile illness in tertiary care hospital.

Method: Cross-sectional, observational study was conducted at the department of Emergency Medicine, Ziauddin University Hospital, Karachi from April 2013 to January 2014. A total of 159 patients meeting inclusion criteria were included in this study. 5 ml of blood by venupuncture in EDTA anti-coagulant for platelet count and preparing thick and thin films and 2 ml of blood in plain bottle for detection of dengue specific IgM was collected from all patients. Thick films are used to identify malarial parasites and thin films to identify specie. Dengue fever was diagnosed on positive dengue IgM. Co-existence was labeled as positive if malarial parasites and dengue IgM found to be present at the same time. This diffusion susceptibility test was used to determine susceptibility of bacterial agents to antibiotics. Data was analyzed by descriptive statistics using SPSS software version 19.

Results: Overall mean (\pm SD) age was 38.3 ± 7.9 years, with Male to female ratio was 1.1: 1. Coinfections (Dengue and Malaria) were diagnosed in 5 (5.6%) of cases. From 5 cases, 3 (60%) were male and 2 (40%) were female. Mean (\pm SD) age of 5 positive cases of co-infection was 37.8 ± 8.3 years.

Conclusion: Concurrent infections were found 5.6% in this study, however, this percentage is slightly low and special consideration should be given to the likelihood of co-infection with dengue and malaria.

Dengue fever, Malaria and COVID-19 are difficult to distinguish because they share clinical and laboratory features. Some authors described cases who were wrongly diagnosed as dengue but later confirmed to be COVID-19. Besides, co-infections with arboviruses and SARS-CoV-2 have not been well studied. In the midst of this complex epidemiological scenario, the fragile healthcare system in world is facing the risk of collapse and multiple socio-economic issues