

## Tropical Genetic Disease: An Important Issue in Tropical Medicine

Wiwanitkit V\*

Honorary professor, Dr DY Patil University, Pune, India; adjunct professor, Joseph Ayobabalola University, Ikeji-Arakeji, Nigeria; visiting professor, Hainan Medical University, China; visiting professor, Faculty of Medicine, University of Nis, Serbia.

\***Corresponding Author:** Viroj Wiwanitkit, Honorary Professor, Dr DY Patil University, Pune, India; Adjunct Professor, Joseph Ayobabalola University, Ikeji-Arakeji, Nigeria; Visiting Professor, Hainan Medical University, China; Visiting Professor, Faculty of Medicine, University of Nis, Serbia. E-mail: wviroj@yahoo.com

**Received Date:** 24<sup>th</sup> May 2019

**Accepted Date:** 25<sup>th</sup> May 2019

**Published Date:** 02<sup>nd</sup> June 2019

**Citation:** Wiwanitkit V. Tropical Genetic Disease: An Important Issue in Tropical Medicine. Enliven: J Genet Mol Cell Biol. 2019;6(1): e001-e002.

**Copyright:** ©2019 **Wiwanitkit V.** This is an Open Access article published and distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

### Abstract

Genetic disease is an important group of medical disorder. There are many genetic diseases. Some diseases are common and specific to tropical region. In tropical medicine, tropical genetic disease is little mentioned. In this short editorial, the author discusses on the tropical genetic disease.

**Keywords:** Genetic Disease; Tropical

### Introduction

Genetic component is the basic background of everyone. The disorder of genetic component or genetic disease is an important group of disease in medicine. Clinically, there are many genetic diseases. Some genetic diseases are common in tropical region and become important problems in tropical medicine. Nevertheless, tropical genetic disease is little mentioned. In this short editorial, the author discusses on the tropical genetic disease.

### Some Important Tropical Genetic Diseases

#### Tropical Hemoglobin Disorder

Hemoglobin disorder is a common problem in medicine. Thalassaemia and hemoglobinopathy are the two common groups of hemoglobin disorder. Of interest, there are some specific tropical hemoglobin disorders [1]. A good example is hemoglobin E disorder [2]. This is a genetic defect of beta globin component of hemoglobin [2]. This disease is highly endemic in Indochina, a tropical region in Southeast Asia. Some rare hemoglobin disorders also exist in specific tropical countries such as hemoglobin Tak Wiwanitkit V [3], which also exist in Indochina.

#### Tropical Genetic Enzymatic Defect

Some genetic enzymatic defects are common in tropical region. The well-known tropical genetic enzymatic defect is glucose-6-phosphate dehydrogenase (G-6-PD) deficiency. Some

specific genetic kinds of G-6-PD deficiency such as G-6-PD Vientiane is specific to Indochina region [4].

### Importance of Tropical Genetic Disease

A tropical genetic disease is a genetic disease. It is important in clinical genetics. Similar to any genetic disease, the diagnosis of disease requires genetic study and the clinical management is usually difficult. The gene therapy is the aim but it is usually difficult. In clinical practice, the tropical genetic disease is common in tropical country. However, the disease presently spread around the world. The disease is already observable in non-tropical zone. The disease migration can be expected. This might be due to the migration of the genetic patient to the new setting or there is a marriage between a genetic defect carrier from tropical endemic country and a spouse in non-tropical country which can result in an offspring with tropical genetic disease. The existence of a new disease in new setting might be expected and it might be the problem for the local practitioner in non-tropical country who are usually not familiar with tropical genetic disease.

### Conclusion

Some genetic diseases are common in tropical countries. Those tropical genetic diseases become important medical problems. The migration of disease can be expected due to the globalization at present. Practitioner in non-tropical region should recognize the possibility of hidden tropical genetic disease in their patients.

## References

- [1]. Wiwanitkit V. Tropical Anemia. Nova Science Publishers, Inc. New York 2007.
- [2]. Fucharoen S, Weatherall DJ. The hemoglobin E thalassemias. Cold Spring Harb Perspect Med. 2012 Aug 1; 2(8). PUBMED PMID: 22908199.
- [3]. Wiwanitkit V. Structural analysis of the elongated part of abnormal haemoglobin "Haemoglobin Tak". Haema. 2004; 7: 310-312.
- [4]. Panich V. G-6-PD variants in Laotians. Hum Hered. 1974; 24(3): 285-290. PUBMED PMID: 4435794

**Submit your manuscript at**  
**<http://enlivenarchive.org/submit-manuscript.php>**

**New initiative of Enliven Archive**

**Apart from providing HTML, PDF versions; we also provide video version and deposit the videos in about 15 freely accessible social network sites that promote videos which in turn will aid in rapid circulation of articles published with us.**