Tropical Genetic Disease: An Important Issue in Tropical Medicine

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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. Thalassemia 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 Vientaine 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


