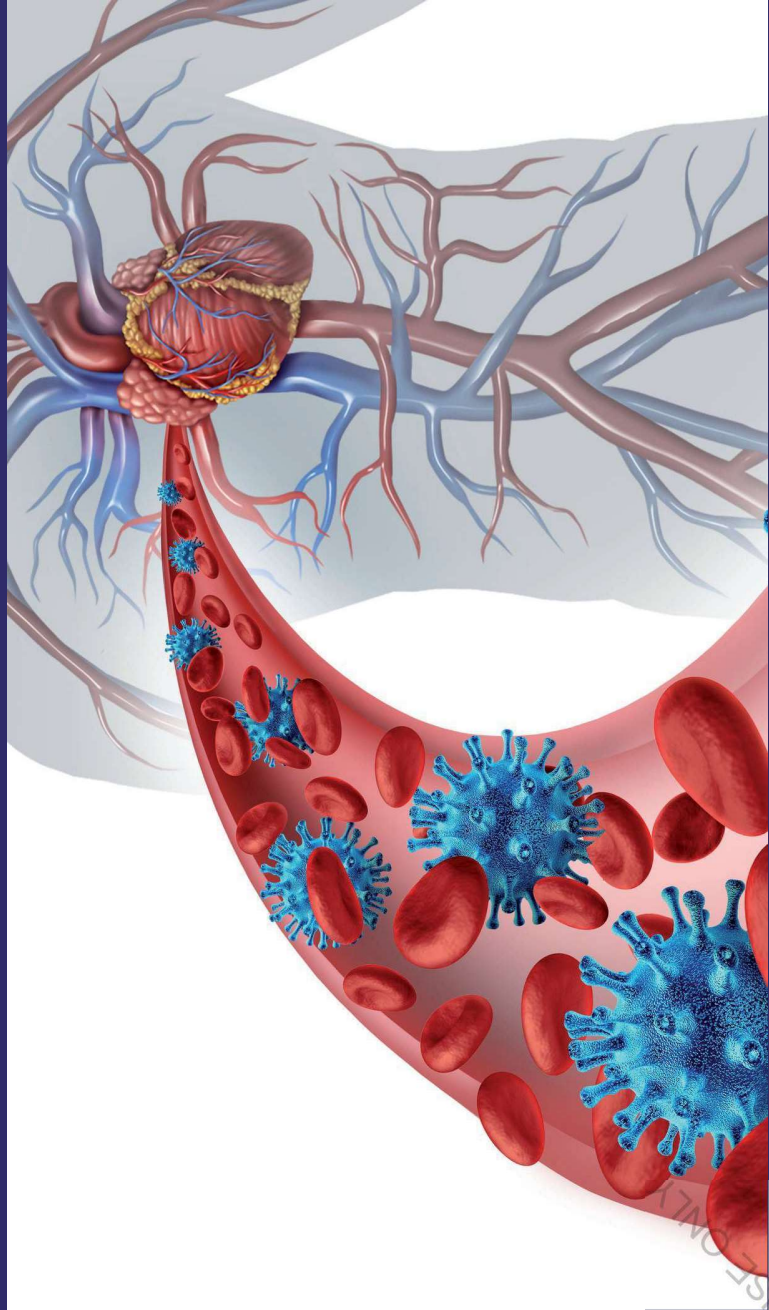


Hepatitis B virus is a serious global public health problem. Severely cases of HBV can lead to chronic liver disease, including cirrhosis and hepatocellular carcinoma. Previously, HBV genotypes have been classified into eight genotypes (A-H) and because of genome diversity is a hallmark of HBV virus allowed its classification into 10 genotypes (A-J). The major classification of HBV subtype is classified into 4 subtypes or serotypes (adr, adw, ayr, and ayw). The clinical relevance of such genotype is yet unclear. However, because the HBV-induced disease is the resultant of virus-host interaction, the disease characteristics may be influenced by the genotypes of the virus. Varieties of methods have been used to detect HBV genotype including whole or partial genome sequencing, genotype-specific PCR amplification, line probe assay, enzyme-linked immunoassay as well as serological methods.



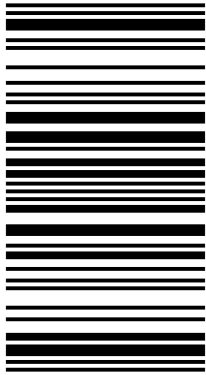
The author has finished his Bachelor degree in Microbiology from University of Mosul in 1989. His Master degree completed in Biotechnology from University Technology Malaysia in 2011. Finally, His PH.D. degree in Microbiology was completed from University of Mosul in 2015. He is teaching Medical biology and Virology for medical students.

Ali Dawood

Hepatitis B virus, Overview, Novel Genotypes & Subtypes

Give me health and take my fortune

Dawood



978-620-0-24083-5

FOR AUTHOR USE ONLY

FOR AUTHOR USE ONLY

Ali Dawood

Hepatitis B virus, Overview, Novel Genotypes & Subtypes

Give me health and take my fortune

FOR AUTHOR USE ONLY

LAP LAMBERT Academic Publishing

Imprint

Any brand names and product names mentioned in this book are subject to trademark, brand or patent protection and are trademarks or registered trademarks of their respective holders. The use of brand names, product names, common names, trade names, product descriptions etc. even without a particular marking in this work is in no way to be construed to mean that such names may be regarded as unrestricted in respect of trademark and brand protection legislation and could thus be used by anyone.

Cover image: www.ingimage.com

Publisher:

LAP LAMBERT Academic Publishing

is a trademark of

International Book Market Service Ltd., member of OmniScriptum Publishing Group

17 Meldrum Street, Beau Bassin 71504, Mauritius

Printed at: see last page

ISBN: 978-620-0-24083-5

Copyright © Ali Dawood

Copyright © 2019 International Book Market Service Ltd., member of OmniScriptum Publishing Group

FOR AUTHOR USE ONLY

Hepatitis B virus, Overview, Novel Genotypes & Subtypes

**Ali Adel Dawood
Ph.D. Microbiology
College of Medicine
University of Mosul
Mosul
Iraq
2019**

Preface

The current (First Edition), Hepatitis B virus, Overview & Novel Genotypes & Subtypes consists of 7 parts and 94 pages. This is a manifestation of not only the wealth of new knowledge acquired on this virus infection, but also the discovery of newly-recognized emerging infections, classical and new genotypes. This edition reexamined the overview of the virus like types of infection cases, life cycle, structure, and had explained the ways for treatment and prevention of infections.

This edition emphasizes the rapid accumulation of new information in such fields of immunity, vaccination and types of serotypes of HBV. Moreover, this edition not only offered a new aspects of laboratory diagnostic of the virus and detection of genotypes, but also was designed to explain some mutations within the virus genome.

July, 2019

Contents

13	Basic	Part Six	Overview of di	18
18	(HBe)	Direct Examina		18
19	(c)	Viral Genome		19
20	(d) protein	Indirect Exam		20
21		Serological me		21

Part Four			
Treatment	29	Detection of early antigen (HBcAg)	60
Prevention	30	Detection antibody of e antigen (anti-HBe)	61
WHO response	32	Detection of HBV DNA	61
Hepatitis B Vaccine	33	Detect HBV genotype	65
Life cycle of HBV	35	Limitations of using in-house assays	67
Part Five			
HBV genotypes	39	PCR-RFLP	68
Relationship between HBV genotypes	40	Future trends in molecular diagnostic testing for chronic hepatitis B	71
Prevalence and epidemiology of genotypes and subgenotypes	41	Mutations of HBV genome	72
Genotype A	42		
Genotype B	42		
Novel Subgenotypes of genotype B	43		
Genotype C	43		
Part Seven			
References			75