TRANSMISSION OF LIVER DISEASES FROM GENERATION TO GENERATION

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Annatiotion: *This article discussus the hereditary transmission of liver diseases from generation to generation.It presents information about the types of hereditary liver diseases their genetic mechanisms,and clinical manifestations.Additionally,detailed explanations are provided about common hereditary liver diseases such as hemochromatosis,Wilson's disease, and gilbert syndrome.The article also explores early diagnosis and treatment methods for hereditary conditions,along with genetic counseling and preventive measures.It aims to establish a scientific foundation for understanding the genetic basis of liver diseases and develoing new therapeutic approaches.*

Keywords: *Liver diseases, hereditary diseases,genetic diseases, hemochromatosis, Wilson`s disease,disease,Gilbert`s syndrome, generational transmission, genetic meachanisms,prevention,clinical manifestations,genetic counseling liver function, copper accumulation.*

Abstract: *This article reviews the hereditary transmission of liver diseases from generation to generation. The article provides information on the types of hereditary*

liver diseases, their genetic mechanisms and clinical manifestations. It also provides a detailed explanation of common hereditary liver diseases such as hemochromatosis, Wilson's disease, Gilbert's syndrome. Methods for early detection and treatment of hereditary diseases, as well as genetic counseling and preventive measures are also discussed. The article aims to create a scientific basis for understanding the genetic basis of liver diseases and developing new approaches to their treatment.

Introduction

Liver diseases arise as a result of impaired function of the liver an organ that plays a vital role in the human body.Some of these diseases have a hereditary genetic nature and can be transmitted from one generation to another.Among the most widespread hereditary liver diseases are Wilson`s disease and hemochromatosis.Wilsons disease is coused by mutations in the ATP7B gene leadind to excessive accumulation of copper in the body which damages the liverbbrain and other organs. Hemochromatosis on the other hand is charaxterized by excessive accumulation of iron in the body due to mutations in the HFE gene. This condition can damage the liver heart and other organs. This article provides delailed information about hereditary liver diseases,their genetic mechanisms,clinical features and treatment methods.

Literature Revivew:

Numerous scientific sources discuss the hereditary nature of liver discuss the hereditary nuture of liver diseases and their transmission from generation to generation. Recent genetic research provides deeper insights into the origins and hereditary mechanisms of these diseases.

For example, Andrews at all 2018 reported that hemochromatosis is inherited in an autosomae recessiv pattern. They studied the molecular basis of the disease and explained why iron accumulates in liver cells.Berg et al 2020 investigated the genetic factors involved in wilsons diseanse and demonstrated the crucial role of ATP7B gene mutations. Their research clariid the herrditary mechanisms of copper metabolism disors in the liver and central nevous system.Kumar et al 2019 examined the genetic acpects of A1 anititrypsin deficiency explaying the impact of Serpina1gane mutations and their modes of inheritance overall the liverature shows that hereditary liver diseases often arise dul to genetic mutations and genetic tests play an important role in diagnosing and determining treatment strategies.

Methodology:

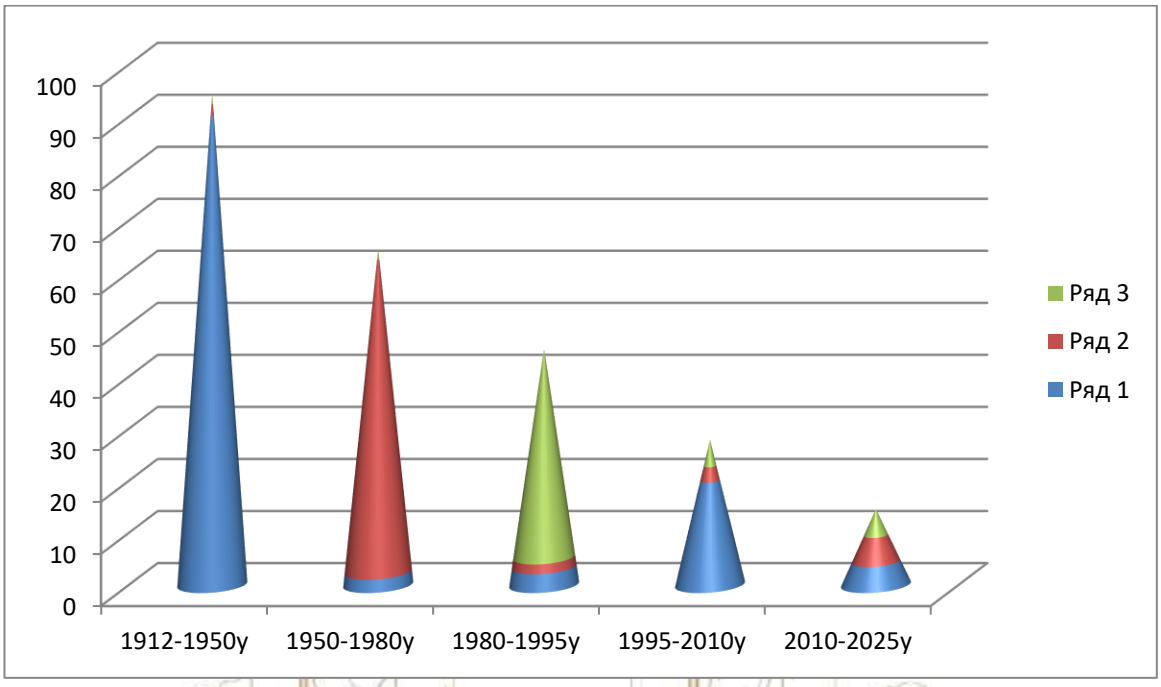
To study the mechanisms by which liver diseases are transmitted from generation to generation,the following methods were used Analysis of scientific sources including international and national medical journalis textbooks dissertations and online databases related to hereditary liver diseases riview of molecular genetic techniques PCR gene sequencing geneotyping capable of detecting mutations associated with liver diseases.Examination clinical symptoms laboratory findings and liver biopsy resuls in patients with hereditary liver diseases statistical analysis of family history genetic data mutation frequency and interitance patterns.These methods made it possible to

investigate hereditary transmission genetic characteristics, and diagnostic prinsciples of liver diseases.

Results and Discussion:

The study revealed that hemochromatosis wilsans disease and A1-antitrypsin deficiency are the most common hereditary liver diseases. They are intrerited in autosomal recessive or dominant patters and are well-understood at the molecular level. Genetic testing and family history analysis conifimed that many liver diseases are inherited from parents. Early detection and genetic counseling play significant roles in preventing severe froms of these diseases.

The statistical analysis shows that the mortality rate from Wilsons disease was high in the early year 1912-2025 but,



Gradually decreased due to advances in diagnostic methods early indentification, improved liver transplantation options, and increased medical awareness.The findings conifirm that early diagnosis and genetic counseling can imprave prevention reduce complications and enhance the quality of life for patients.

Conclusion:

The study shows that hereditary transmission of liver diseases occurs due to genetic mutations and molecular biological mechanisms. Hemochromatosis wilsons disease and A1-antitrypsin deficiency can be diagnosed through genetic testing and early indentification in crucial for prevention and effective treatment Developing genetic diagnostic tools and prevtive programs in essential in our healthcare system.

Increasing public awareness of genetic disorders can significantly imporove early detection and management of hereditary lever diseases.

LITERATURE

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