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Genetic Disorders – The Need of Order..!!

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Short Commentary

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ABSTRACT

Genetic disorders are causing a lot of complex problems in our daily life. Due to the large scale amount of discrepancies in the genes we are unable to find a cure for many genetic disorders. Understanding many genetics disorders it is taking a lot of time. The number of people suffering by the genetic disorders is increasing day by day. We are yet to find a remedy to the problems occurring due to the genes.

INTRODUCTION

Genetic disorders are causing a lot of complex problems in our daily life. Due to the large scale amount of discrepancies in the genes we are unable to find a cure for many genetic disorders. Understanding many genetics disorders itself is taking a lot of time. The number of people suffering by the genetic disorders is increasing day by day. We are yet to find a remedy to the problems occurring due to the genes.

The number of cases occurring due to genetic disorders is increasing day by day. Due to the vast number of genes in our body it's becoming difficult and time taking process to identify to disorder and find a cure for it. The basic structure of the gene can get altered due to many reasons such as mutation, recombination etc. Mutations cause many abnormalities and alterations in the gene pairs. Numerous human infections have a hereditary segment. Some of these conditions are under scrutiny via scientists at or connected with the National Human Genome Research Institute (NHGRI). Underneath you will discover a rundown of close hereditary, vagrant and uncommon ailments. This rundown is in no way, shape or form thorough. In the event that the condition you are searching for is not recorded beneath, you may have the capacity to discover different assets of data. Here and there, doctors are not able to put a name to a hereditary condition. At the point when this happens, doctors will say that the grown-up has an undiscovered uncommon or hereditary condition.

METHODS

Many chromosomal abnormalities are occurring these days, these chromosomal abnormaliteis can have other impact in the body such as effecting the reproductive system,^[1] nervous system etc. We have to find the cause and the effects of the chromosomal abnormalities. We need to find the cause and the location of the genetic disorder.

To analyze the chromosomes many novel methods are being found day by day. Some of the commonly

used novel methods are cytogenetic analysis, FISH techniques, NOR staining. Cytogenetic analysis is done with the help of lymphocytes [2].

NOR staining can be executed during the metaphase stage to observe the satellite regions of the acrocentric chromosome [3]. FISH analysis is done with the help of the whole chromosome problems of chromosome 21. Sequencing techniques are being used more and these days to make rapid progress in gene analysis [4]. Sequencing techniques are being numerously employed on the account of the family based segregation to have a comprehensive study of the gene alterations [5]. Presently a lot of advancements have been made due to the endeavors of global associations such as Genome-Wide Association Studies [GWASs] and positional cloning studies [6]. Genetic disorders can be influenced by various factors such as food, aging, environment [7]. Gene therapy is gaining prominence in the study of genetic disorders [8]. Novel methods have been developed using the existing gene therapy methods such as the heterologous therapy methods [9]. Assistance of other discipline studies can be used in the study genetic disorders such as Pharmacogenomics that can study the variation of the genes [10]. Gene Directed Enzyme Prodrug Therapy (GDEPT) is another novel method that can assist us in assessing the genes [11].

Study of genes can help us understand the many antiviral and antibacterial activities and affect the cell growth and death [12]. The application of gene therapy is increasing significantly such as for the destruction of chance causing tumour cells [13]. Gene therapy is useful in checking cancer causing genes, because cancer can occur due to mutation of significant genes and disrupt normal cell growth [14].

Many factors have to be regulated while researching the gene functions such as the study of the physiological heterogeneous population and non-genetic traits that can convey information in different forms such as networks or patterns [15]. Study of homogenous subpopulations gives us indications of the population heterogeneity and can help us in the study of genes [16]. The huge amount of data can be studied lucidly in the form of graphs.

Graphs can give us a complex study of systems and networks [17]. The networks have to studied in a brief manner by characterizing the topologies [18]. Gene therapy has made significant contributions such as for the treatment of glaucoma therapy [19].

Many achievements have been made in the research of gene therapy such as the detection of hepatocytes growth factor-regulated tyrosine kinase substrate (HRS), casein kinase II and lysosomal trafficking regulator-interacting protein 5 (LIP5) [20]. Microsatellites are playing a predominant role in analyzing the genetic structural assessment [21]. Information of polymorphism at microsatellite level has made advancement more progressive [22]. Multiplex polymerase chain reaction based technology has made identification of genes easier and simpler [23].

CONCLUSION

Moreover, creature models have helped recognize hopeful qualities included in the improvement of these inconsistencies and instances of dissonant monozygotic twins have likewise given knowledge into the conceivable contribution of epigenetic instruments [24].

Numerous peculiarities are felt to be multifactorial; however there are case reports of familial legacy recommending that particular hereditary transformations may bring about these imperfections [25].

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