

Introduction to weakening of some segments of



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Introduction

Huntington's disease is also referred to as Huntington's chorea which is an inherited disorder affecting an individual's brain. It mainly affects the affected person's personality, memory capabilities and mood changes.

Physical control may be lost as well with most of these symptoms progressing as the disease advances. Basic symptoms appear at a later age of around forty years. It involves damage of the nerve cells resulting to weakening of some segments of the human brain. This disease is not curable and it causes mental disabilities in the patients and their families may suffer emotional and financial problems (Kennard, 2006, p. 1)

Causes of the disease

Huntington's disease is passed from mother to her unborn child due to mutations from the normal gene. Genes are the basic biological units of life and heredity.

A single mutation forms an abnormal gene which alone is enough to cause this disease. All genes are made up of either DNA or RNA but not both. Both DNA and RNA are spirally shaped molecules made up of two base pairs. The four bases, adenine, guanine, cytosine and thymine always form specific pairs which later combine to form messages in the form of codes.

The unique and specific combination of these base pairs in each gene specifies the particular functions of the genes. All human beings have 23 pairs of chromosomes where the genes are arranged. Each pair of chromosomes consists of one chromosome from the mother and the other from the father. Half of the chromosome pair is similar to the other half with the exception of the sex chromosome where a female has two X chromosomes while a male has an X and a Y chromosome. Huntington's disease is produced by mutation of the gene that is located on the 4th of the 22 chromosomes that are not sex-linked. Since the sex chromosomes are not involved in the production of this disease, both men and women are equally susceptible to Huntington's disease (Kennard, 2006, p.

1)

Developmental course of the disease

The gene that causes Huntington's disease is dominant which means that only one mutated gene from either parent is required to produce the disease. The mutation accountable for Huntington's disease involves a minor DNA sequence on chromosome four of the 22 autosomal chromosomes. The defect occurs when the normal base sequence, CAG is repeated severally (Chial, 2008, p. 1). Soon after the defect occurs, symptoms start appearing.

The initial symptoms of Huntington's disease are variable in different individuals.

However, it is common in all patients for the disease to advance faster if initial symptoms had appeared early. An individual first experiences mood swings and gets irritated for no particular reason. The person may not notice these early symptoms but the family members do. The affected person feels depressed and lacks the will and general lack of interest in almost everything. In some individuals, these symptoms may reduce as the disease advances while in others, they may continue accompanied by sudden violent disturbances. Due to the memory loss associated with Huntington's disease, the patient may experience trouble learning new things and in performing basic tasks such as driving. Remembering usual things and making decisions becomes a problem as well.

Others may change their handwriting and lose their ability to comprehend. Other individuals experience uncontrolled movement of fingers and feet which often get more vigorous when the affected person is anxious (McHenry, 2010, p. 1).

Complications of the disease

Untreated Huntington's disease eventually results to loss of balance which is characterized by the patient falling more often when walking. With time, it reaches a point where individuals are unable to eat, talk or even recognize their family members.

Inability to eat definitely results to health risks due to lack of balanced diet and essential nutrients of the body.

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Treatment

Currently, there is no treatment that can stop or even slow the disease. The main idea of treatment is basically the management of the signs and effects of the disease. Medications have been produced to ease the spontaneous movements and disturbing disorders although some patients may experience certain side effects such as drowsiness and nausea during which they should terminate the use of that particular medicine. Patients experiencing psychological symptoms are recommended to use anti-depressant medications.

Besides medical assistance, physical therapy is necessary to help keep balance and build strength for walking and other activities. The time spend during exercise also helps in reduce depression as the patient gets pre occupied. Medical specialist have recommended the use of care givers to assist in helping such patients especially where one has a lot of chores and other things to take care of.

This is because the patients require extra attention and they may also need the use of long-time facilities. Huntington's disease cannot be prevented since it occurs naturally through inheritance. The disease is also not curable and therefore patients should be given all the support they need from family members as well as the society. However, scientists have recently found out that there are some synthetic chemicals that can interfere with the production of protein and prevent human cells from producing mutated molecules that result to development of the disease (McHenry, 2010, p. 1).

Conclusion

Huntington's disease is a very serious disease since it affects the brain which is the centre of all human activities. However, since it cannot be cured or prevented due to its inheritability, patients of the disease should focus on maintaining the symptoms associated with it off course with the help and support of family members.

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