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A REVIEW ON EFFECT OF CREUTZFELDT DISEASE

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Abstract

Creutzfeldt disease is a fatal neurological disorder that affects one in every one million people worldwide. It is characterized by the spongiform change in the cerebral grey matter. It is a degenerative brain disorder leading to dementia and death. The cause of the disease is believed to be a prion. Avoid donating blood if a person is confirmed with the disease. When a Creutzfeldt diseased person has been treated one who is handling the patient should always wash hands or before eating, drinking or smoking. Cover the cuts with waterproof dressing. Never forget to use gloves when dealing with tissue and fluids of patients. Sterilize the medical instruments. PATHOPHYSIOLOGY Cellular prion diseases are characterized by accumulation of abnormal form of prion Protein called as PRs where SC symbolic scrapie isoform and in the brain and other organs. PrPsc caries due to external environment due to in cellular or ingestion and due to the inherited mutation of PRNP. Autocatalytic process occurs where in Normal PrPc is converted to PrPsc Normal PrPsc

Introduction

Creutzfeldt disease, it is one of the most uncommon fatal neurological disorders which is characterized by the spongiform change in the cerebral grey matter another name for that is subaclde spongiform encephalopathy although it an acute disease still it can cause to be fatal because one of the most important vital body part is affected. It is a neurodegenerative condition that is transmissible, progress and uniformly fatal. It can occur in human as well as animal. It has been first observed or diagnosed in 1990's. Though its transmissible agent is still uncertain, with suggestion of a slow virus or virino. The transmissible agent which spreads spongiform encephalopathies has not been proved yet. (1). these agents are minute composed of proteins. In UK persons with sporadic CTD were at the age of 60-69 years. (2)(3)

Definition

Creutzfeldt is a degenerative brain disorder leading to dementia and death. Each year it is affecting about in every one million people worldwide it is characterized by behavioural change, memory impairment in early-stage people may suffer from failing memory, lack of coordination in addition to that visual disturbances also occur laterly, mental deterioration become pronounced, involuntary movements, blindness, weakness may lead to coma.

Causes

Its causative agent was found to be a prion which is a type of protein with an abnormal air as it also passes this abnormality to other protein molecules. Which further damages brain tissues leading to the occurrence of the disease symptoms. Prions responsible for Creutzfeldt disease has longer incubation period because of which it becomes difficult to target them. They do not contain any nucleic acid.

Symptoms

It includes this series of symptoms namely movement disorders such as myoclonus, visual disturbances including blurred, unclear vision, progressive dementia accompanying ataxia this symptoms ultimate leads to a kinetic medium. Very less number of patients survive for longer time. (2)(3)

Diagnosis

- It is an important step involved in any kind of treatment it helps us to identify which kind of illness exactly a person is suffering from. It is difficult to diagnose this disease only on the basis of clinical criteria. Clinical criteria with neuropathological confirmation can help to diagnose the disease more accurately. Following methods can be adopted to carry out the diagnosis of Creutzfeldt Disease

Pharmacist in relation to his job

1. MRI it is one of the valuable diagnostic tool because it help to identify the treatment which are very much specific to veto. Some of the patients present themselves with pulvinar or hockey shock sign. This change occurs in the pulvinar and dorso medical areas of thalamus in brain and can be seen on FLAIR and DWI sequence. (4)

2. Electro encephalography. It is another method for the purpose of diagnosis which shows periodic sharp wave complexes which cannot be seen typically cerebrospinal Fluid examination. Cells all protein are counted is generally normal in Cerebrospinal fluid but some proteins 14-3-3 tau and S100 B may raise which masks the presence of neurodegeneration

Treatment

Opiate drugs can be given to relieve pain if occurs although Creutzfeldt disease and other human prion diseases are fatal and at presence these is nothing such proof which can completely cure Creutzfeldt disease. Still several treatments have been developed and also developing. Most spelled or we can say adopted methods for the treatment of Creutzfeldt disease includes quinacrine pento polysulphate.

Quinacrine treatment includes the use of quinacrine and chlorpromazine for prion disease in addition to that acridine and phenothiazine derivatives can be used as pharmacotherapeutic for the purpose of trealing prion disease this drug works by the inhibition of disease formation associated with prion protein formation in neuroblastoma cell which are infected with scrafrie. Quinacrine and chlorpromazine have been used from many past years to treat malaria and psychosis respectively they can penetrate BBB. (5)

Pentason polysulphate is a derivative of Beachwood it possesses anti thromobotic in addition to that it also has anti inflammatory properties. It is also used in trealing therobotic disorder and interracial cystitis. None of the treatment show. Slowing down or halting the disease process in humans. Patients treating with pps should be given it as easily as possible this treatment is not feasible. (5)

Prevention

It has been said from part decades that prevention is always better than cure here it is very important to mention and elaborate this quote because CJD is such fatal as life threating disorder which degrades or damages the crucial part of human body which is none other than brain. Here are some of the preventive measures which help to save ourselves from getting prone to such disease. Avoid donating blood if a person is confirmed with CJD. When a CJD person has been treated one who is handling the patient should always wash hands or before eating, drinking or smoking. Cover the cuts with waterproof dressing. Never forget to use gloves when dealing with tissue and fluids of patients. Sterilize the medical instruments.

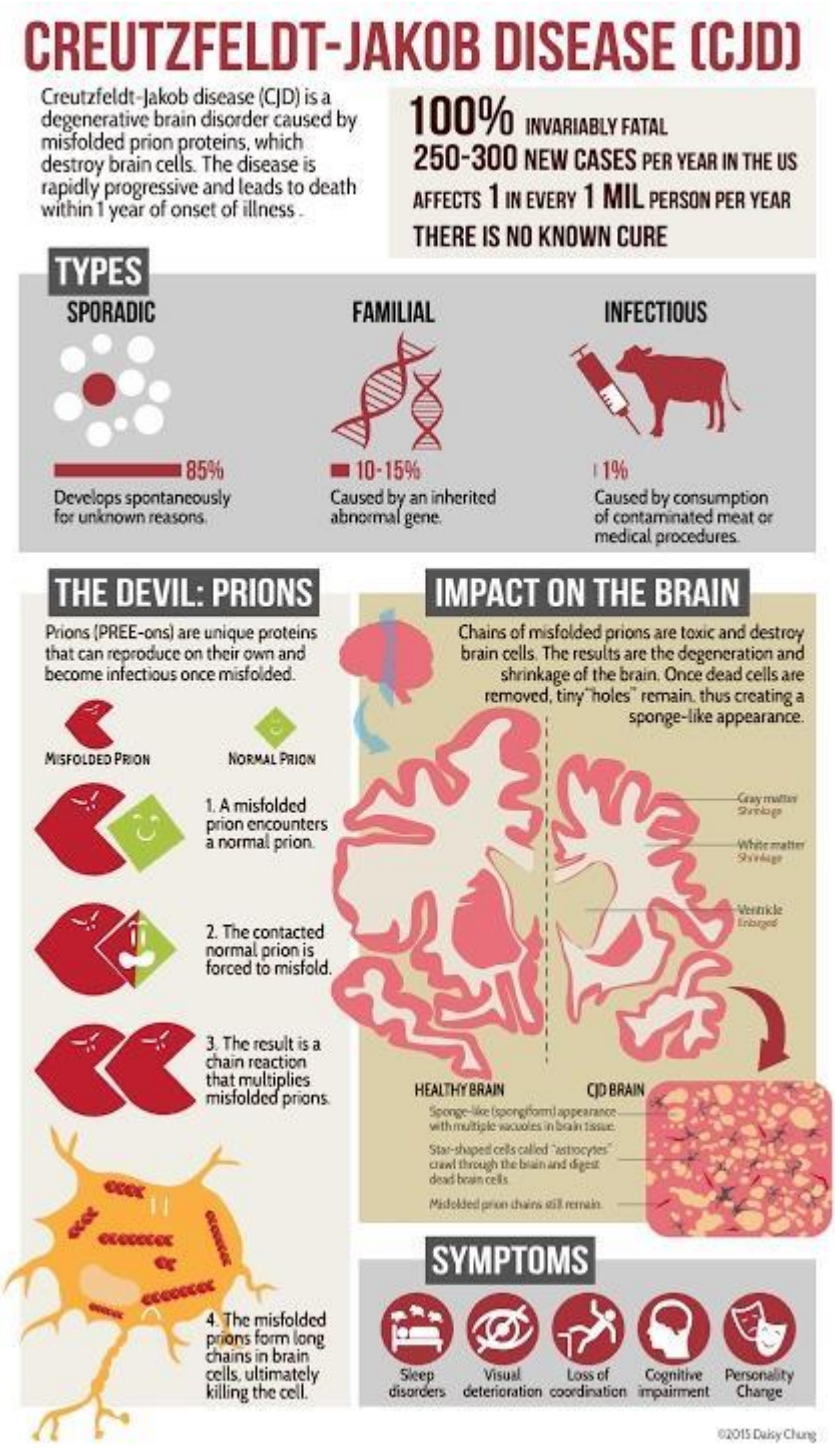
PATHOPHYSIOLOGY

Cellular prion diseases are characterized by accumulation of abnormal form of prion Protein called as PrPsc where SC symbolic scrapie isoform and in the brain and other organs.

PrPsc caries due to external environment due to in cellular or ingestion and due to the inherited mutation of PRNP.

Autocatalytic process occurs where in Normal PrPc is converted to PrPsc

Normal PrPsc



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