Creutzfeldt-Jakob Disease

**History and Cause**

Creutzfeldt-Jakob Disease was first described by German neurologist Hans Gerhard Creutzfeldt and by Alfons Maria Jakob in 1920. There are three major types and causes of CJD.

1. **Sporadic CJD** accounts for 85% of the cases and is the most common type and appears in a person who does not have any known risk factors.
2. **Hereditary** form of CJD which accounts for 5 to 10% of the disease. It is linked to genetic mutations as evident by family history or by testing positive for genes associated with the disorder.
3. **Acquired** CJD and is transmitted by exposure to brain or central nervous system tissue possibly during medical procedure or contaminated medical instruments.

**Symptoms**

CJD affects the mind and body although CJD progresses very rapidly. Common symptoms that appear are:

- rapidly progressing dementia
- changes in personality
- rapidly progressing memory loss
- impaired judgment and thinking
- impaired vision including vision loss, insomnia
- myoclonus or muscle spasms and twitches
- depression, difficulty speaking
- dysphagia which is difficulty of swallowing
- total vision loss
- the ability to move and speak
- Living in a comatose state
- Life threatening complications of CJD include infection, heart failure, respiratory failure and pneumonia. The brain can no longer regulate the body’s vital functions and is shutting down.

**Treatment**

- There currently exists no treatment that can halt or prevent CJD.
- The disease is inevitable fatal.
- Treatment is aimed at alleviating symptoms and making the patient as comfortable as possible.

**Test and Diagnosis**

There is currently no single diagnostic test that is sensitive enough for CJD. It is very difficult to diagnose CJD and the primary concern is to rule out treatable forms of dementia such as encephalitis or chronic meningitis.

- Blood tests to rule out other forms of dementia.
- Computed Axial Tomography (CAT scan)
- Electroencephalogram (EEG),
- Magnetic Resonance Imaging (MRI).
- The only way to confirm CJD is by brain biopsy or autopsy.

**Research**

The leading scientific theory at this time maintains that CJD is cause by a type of protein called a prion. The harmless and infectious forms are nearly identical however; the infectious form takes a different folded shape.

Researchers have tested many drugs including amantadine, steroids, interferon, acyclovir, antiviral agents, and antibiotics. Studies of a variety of other drugs are now in progress however, none have proven beneficial.

**References**

