

Review On Alien Hand Syndrome (AHS)

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ABSTRACT

In this research paper I have described briefly about this neurological disease called alien hand syndrome shortly known as (AHS). A doctor may diagnose alien hand syndrome through observation and evaluation. Diagnosing alien hand syndrome is complicated because it's a neurological disorder that **lacks a psychiatric component**. In this paper I have describe what type of disorder AHS is and which part of brain is affected by this syndrome. This papers also includes can we recover this syndrome or not, if yes then how this syndrome can be treated and its symptoms, causes and various types of treatment and their efficiency.

KEYWORDS

Alien Hand Syndrome, Alien Hand, Neurological Disease, Psychiatric, AHS, Syndrome

INTRODUCTION

Alien hand syndrome or Dr. Strangelove syndrome is a neurological condition in which a person's limbs acts seemingly on their own, without the conscious control of their mind. There are various clinical condition which falls under this category, and most commonly the left hand gets affected. The affected person may sometimes reach for object and manipulate them means without the consent of their mind. Alien hand syndrome is best documented in cases where a person has had two hemispheres of their brain separated surgically, a procedure which used to relieve the symptoms of extreme cases of epilepsy and epileptic psychosis. It also occurs in cases after brain surgery, stroke, infection, tumor, aneurysm, migraine and specific degenerative conditions such as Alzheimer's disease, Cervicofacial degeneration. The areas of brain which are affected by alien hand syndrome are frontal, occipital and parietal lobes.



The first known case described in the medical literature appeared in a detailed case report published in German in 1908 by the preeminent German neuro- psychiatrist, Kurt Goldstein. In this paper, Goldstein described a right- handed woman who had had a stroke affecting her left side from which she had partially recovered by the time she was seen. However, her left arm seemed as though it belonged to another person and performed actions that appeared to occur independent of her will. The patient complained of a feeling of "strangeness" in relationship to the goal- directed movements of the left hand and insisted that "someone else" was moving the left hand, and that she was not moving it herself. When the left hand grasped an object, she could not voluntarily release it. The senses of touch and proprioception of the left side were impaired. The left hand would make spontaneous movements, such as wiping the face or rubbing the eyes, but these were relatively infrequent. With significant effort, she was able to move her left arm in response to spoken command, but conscious movements were slower or less precise than similar involuntary motions.

CAUSES AND SYMPTOMS

Alien hand syndrome can be caused by various factors like some people develop alien hand syndrome after a stroke, trauma or tumor. Sometimes it can be associated with cancer, neurodegenerative diseases, and brain aneurysms. (Neurodegenerative means a type of disease in which cells of the central nervous system stop working or die and brain aneurysms means a bulge or ballooning in a blood vessel in the brain). Aneurysms often look like a berry hanging on a stem and causes leak or rupture, causing bleeding into the brain which is often known as hemorrhagic stroke.

Alien hand syndrome is linked to brain surgeries that separates the two hemispheres of the brain. It may involve corpus callosum. The corpus callosum divides the two hemisphere of brain and allows for communication between the two sides.

Causes And Symptoms Of Alien Hand Syndrome!



Brain scan show that people with AHS have isolated activities in the contralateral primary motor area (**the motor area which stimulation requires the least amount of electrical current to elicit a movement**). This is thought to be due to lesions damage in the parietal cortex (**one of the four major lobes of the cortex which is primarily responsible of sensations of touch, such as temperature and pain and also play a role in numerous other functions**). This affects intentional planning systems and can cause spontaneous movements.

SYMPTOMS

The most prominent symptom of alien hand syndrome is that the affected person has no control on his hand as it acts independently. The affected hand may move involuntarily and perform goal-directed tasks and actions. The hand is said to move without cognitive control or awareness. It's as though it's being controlled by someone else or has a mind of its own.

The hand may touch your face, button a shirt, or pick up an object, sometimes repeatedly or compulsively. The hand may also engage in self-oppositional actions such as closing a drawer that the other hand just opened or unbuttoning a shirt that you just buttoned. The alien hand behaves uncooperatively and may perform incorrect actions or fail to follow commands.

The affected person may sense that the hand or limb is foreign or does not belong to them. However, they don't deny limb ownership, which can happen in other disorders.

DIAGNOSIS

A doctor may diagnose alien hand syndrome through observation and evaluation. Diagnosing alien hand syndrome is complicated because it is a complicated neurological disorder that lacks psychiatric component.

This makes it more difficult as behavioral issues are more common than alien hand syndrome. Symptoms can sometimes be attributed to a psychiatric disorder, which may be frustrating to the affected person.

TREATMENT OPTIONS

There is no cure for alien hand syndrome. Therapies and pharmacological methods are there to lack development of alien hand syndrome. Scientists are working on treatment to reduce symptoms. People who have alien hand syndrome after brain illness may recover after sometime but it is less for people who after because of neurodegenerative disease. The treatment may be control using muscle control therapies such as mirror box therapy, cognitive therapy techniques. Benzodiazepines have been successful in some cases but the behavioral techniques seem to be more beneficial.

It may help for the individual with alien hand syndrome or another person to give verbal commands to stop the actions. However, this method may not provide long-lasting results. A doctor may recommend physical and occupational therapies.

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