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Infantile Spasms/West Syndrome

Infantile spasms are a specific type of seizure and spasm that affect infants and children. Infantile spasms are often called West syndrome. Infantile spasms are often misdiagnosed as Colic. The pattern of attacks and the child's crying during or after an attack is similar to Colic symptoms.

At the onset, spasms are usually infrequent and do not happen in clusters. Seizures or spasms happen in clusters as the syndrome progresses but only last a few minutes.

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Symptoms

West Syndrome's three features are a loss of developmental progress or developmental regression, hypsarrhythmia, an irregular pattern of brain waves detectable by EEG, and Infantile spasms, that begin early around the first year of life.

Symptoms

- Infantile spasms usually start before 12 months and stop around four years old.
- Sudden stiffening of the body and brief bending forward or backward of the arms, legs, and head are characteristics of Infantile spasms. More violent seizures can make them stiffen up, fling their arms out, and bring their knees up toward their body.

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Symptoms

- Some seizures only affect one side of their body.
- Seizures last only a few seconds and are usually in clusters.
- Spasms or seizures are common after waking up and rarely occur during sleep.
- Many children have developmental disabilities later in life.
- Loss of appetite
- Changes in sleep patterns, such as sleeping more during the day and less at night
- Acting like they can't see

Diagnosis

To determine a diagnosis of West syndrome, a clinician will review a detailed history of the seizures, Magnetic resonance imaging (MRI) scans, Electroencephalography (EEG) reports, blood tests, urine tests, and sometimes a fluid test from the spine.

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Diagnosis

Two EEGs may be needed before a determination is made. An EEG is recorded while the patient is awake, but if this does not show the pattern of hypsarrhythmia, another EEG is administered when the patient is asleep.

West Syndrome can be passed on genetically; blood tests can confirm a genetic link.

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Treatments

Early treatment options are steroids, corticosteroids, adrenocorticotropic hormone (ACTH), or vigabatrin. Vigabatrin is an effective option for those whose spasms are caused by tuberous sclerosis complex. Research suggests that some infants respond better to vigabatrin and a steroid given simultaneously. Prednisolone is the steroid often used. Side effects accompany each treatment; parents should be mindful and watch their children closely.

Other helpful anti-seizure medications include Onfi, Klonopin, Depakote, Topamax, vitamin B6, and Zonegran. These medications are considered less effective than steroids/ACTH and vigabatrin.

A particular dietary therapy (often called the ketogenic diet) may also be helpful for some infants.

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Treatments

Malformations of the brain or tuberous sclerosis complex are reasons to explore epilepsy surgery.

Six out of ten children will have their spasms controlled. Many infants with infantile spasms will develop autism or have intellectual disabilities later. Children develop other kinds of epilepsy later in life, focal or multifocal epilepsy, and these types of epilepsy do not respond well to current treatments.

Early diagnosis and treatment are important in a child's developmental outcomes. Usually, the spasms stop by the time a child is 4 years old. But most kids who have West syndrome will have other kinds of epilepsy or seizure conditions when they're older.

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