Transverse Myelitis

Transverse myelitis is a disorder of the nerves of your spinal cord. It can happen in anyone. This disorder is caused by an inflammation (the body's way of reacting to injury or infection) in parts of your spinal cord. This can hurt the normal cover around nerve fibers. This would be similar to losing the insulation around electrical wires. This damage hurts the nervous system. This causes problems with the nerves in the spinal cord carrying signals to the rest of the body.

The part of the spinal cord affected determines which parts of the body are affected. Usually problems happen at the chest level. This causes problems with leg movement and bowel and bladder control.

Some patients recover from this disorder with minor or no left over problems. Others may have lasting problems that make daily living difficult. Most patients will have only 1 episode of transverse myelitis. A small percentage may have problems return.

CAUSES

The exact cause is not known. Some of the things thought to cause this problem include:

- Viral infections.
- Abnormal immune reactions.
- Poor blood flow to the spinal cord vessels.

This disorder also may occur as a complication of:

- Syphilis.
- Measles.
- Lyme disease.
- Chickenpox (when the case of chickenpox is severe).
- Some vaccinations, including those for chickenpox and rabies.

Cases in which a cause cannot be found are called idiopathic.

SYMPTOMS

Transverse myelitis may cause a loss of spinal cord function over several hours to several weeks. Some of these symptoms are:

- Headaches.
- Fever.
- Loss of appetite.
- Pain is often the first complaint.
- A sudden onset of lower back pain.
- Muscle weakness.
- Abnormal sensations in the toes and feet.
- Weakness in the arms and legs.
- More severe symptoms of paralysis.
- Bowel and urinary problems may vary. Symptoms can include:
  - Increased frequency of the urge to urinate or have bowel movements.
  - Loss of control.
  - Difficulty passing urine.
  - Feeling that you have not fully emptied the bowel after a movement.
  - Constipation.

DIAGNOSIS

- Your caregivers suspect a problem of Transverse Myelitis by taking a medical history. They will also perform a neurological examination.

- Treatable causes are looked for first.
- Testing may include a magnetic resonance imaging (MRI). This is a procedure that provides a picture of the brain and spinal cord.
- Your caregivers may perform myelography. This involves injecting a dye into the sac that surrounds the spinal cord while x-rays are taken.
- Blood tests may be performed.
- A spinal tap may be done to examine the spinal fluid.

TREATMENT

No effective cure currently exists for this illness. But treatments are designed to help decrease the symptoms.

- Corticosteroid treatment is often used during the first few weeks of illness. This decreases inflammation.
- Pain medications are prescribed as needed.
- Sometimes respirators are needed if there is severe difficulty breathing.
- Physical therapy may be used to keep muscles flexible and strong.
- Movement also decreases the chances of pressure sores developing.
- Later, if patients begin to recover limb control, physical therapy begins to help improve muscle strength, coordination, and range of motion.

HOME CARE INSTRUCTIONS

Much can be done for people with permanent disabilities.

- Treatment programs and other resources are likely available in your community. Medical social workers can help you locate this information.
- Rehabilitative therapy will teach you how to care for yourself. This helps you overcome, avoid or compensate for lasting disabilities. Rehabilitation cannot reverse the physical damage resulting from this illness. It can help people, even those with severe paralysis, become as independent as possible. This helps you attain the best possible quality of life.
- Medications can be prescribed by your caregiver. These medications can help with depression and adapting to a changed way of life. Also, a wide variety of drugs now exist that can help the pain that results from spinal cord injuries.
- Increasing your strength and endurance is possible. Physiatrists and physical therapists treat disabilities that result from motor and sensory impairments. Treatment improves coordination, reduces spasticity and muscle wasting in paralyzed limbs. Physical therapists and physiatrists can also help you regain greater control over bladder and bowel function through various exercises. They can also teach paralyzed patients techniques for using assistive devices as effectively as possible. These include wheelchairs, canes, or braces.
- Avoiding painful pressure sores on immobilized parts of the body is important. These sores may lead to increased pain or systemic infection. Also, physiatrists and physical therapists are involved in pain management.
- Learning new ways of performing meaningful, self-directed, goal-oriented, everyday tasks is important. These tasks include bathing, dressing, preparing a meal, house cleaning, engaging in arts and crafts, or gardening. Occupational therapists can help you with this. They teach you how to:
  - Make changes in your home to improve safety (such as installing grab bars in bathrooms).
  - Change obstacles in your surroundings that interfere with normal activity.
  - Use assistive devices.

PROGNOSIS

- Recovery usually begins within 2 to 12 weeks of the onset of symptoms. It may continue for up to 2 years.
- If there is no improvement within the first 3 to 6 months, significant recovery is unlikely.
- About 1/3 of people affected with this illness experience good or full recovery from their symptoms. They regain the ability to walk normally and have minimal urinary or bowel effects and minimal problems with the normal skin sensation.
- Another 1/3 show only fair recovery. They are left with major deficits such as spastic gait, sensory

problems, and significant urinary urgency or incontinence.

- The remaining 1/3 show little or no improvement in symptoms. Those patients will remain wheelchair-bound or bedridden. They will have marked dependence on others for basic functions of daily living.
- Making predictions about individual cases is difficult.
- A rapid onset of symptoms generally results in poorer recovery outcomes.

WHAT RESEARCH IS BEING DONE?

Within the Federal Government, the National Institute of Neurological Disorders and Stroke (NINDS), one of the National Institutes of Health (NIH), has primary responsibility for conducting and supporting research on spinal cord disorders and demyelinating diseases. This includes transverse myelitis. The NINDS conducts research in its laboratories at the NIH. It also supports studies through grants to major medical institutions across the country.

WHERE CAN I GET MORE INFORMATION?

For more information on neurological disorders or research programs funded by the National Institute of Neurological Disorders and Stroke, contact the Institute's Brain Resources and Information Network (BRAIN) at:

BRAIN
P.O. Box 5801
Bethesda, MD 20824
(800) 352-9424
http://www.ninds.nih.gov
Information also is available from the following organizations:

Transverse Myelitis Association
1787 Sutter Parkway
Powell, OH 43065-8806
info@myelitis.org
http://www.myelitis.org
Tel: 614-766-1806

American Chronic Pain Association (ACPA)
P.O. Box 850
Rocklin, CA 95677-0850
ACPA@pacbell.net
http://www.theacpa.org
Tel: 916-632-0922 800-533-3231
Fax: 916-632-3208

Miami Project to Cure Paralysis/ Buoniconti Fund
P.O. Box 016960
R-48
Miami, FL 33101-6960
mpinfo@miamiproject.med.miami.edu
http://www.themiamiproject.org
Tel: 305-243-6001 800-STANDUP (782-6387)
Fax: 305-243-6017

National Rehabilitation Information Center (NARIC)
4200 Forbes Boulevard
Suite 202
Lanham, MD 20706-4829
naricinfo@heitechservices.com
http://www.naric.com
Tel: 301-459-5900/301-459-5984 (TTY) 800-346-2742
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