Redwood Caregiver Resource Center
1140 Sonoma Ave., Ste. 1B
Santa Rosa, CA 95405
(707) 542-0282 or (800) 834-1636
Fax (707) 542-0552
Email: rcrc@redwoodcrc.org
Web: http://redwoodcrc.org
Serving: Del Norte, Humboldt, Mendocino, Lake, Sonoma, Napa & Solano Counties

FACT SHEET
Dementia

Definition

The term "dementia" is used by the medical community to describe patients with impaired intellectual capacity. Dementia patients may also be labeled as having "presenile" or "senile" dementia, "chronic" or "organic brain syndrome," "arterio-sclerosis," or "cerebral atrophy." It is important to point out that dementia *is not* a normal part of the aging process. Dementing conditions are caused by abnormal disease processes, and can affect younger as well as older persons.

Facts

The U.S. Congress Office of Technology Assessment estimates that 1.8 million Americans have severe dementia and another 1 to 5 million Americans have mild to moderate dementia. According to the Alzheimer's Association, approximately 4 million of these people are afflicted with Alzheimer's disease. By the year 2040, the number of persons with Alzheimer's disease may exceed 6 million. The prevalence of Alzheimer's disease doubles every five years after age 65, and nearly half of all people age 85 and older are thought to have some form of dementia.

Symptoms

Signs of dementia include short-term memory loss, inability to think problems through or

complete complex tasks without step-by-step instructions, confusion, difficulty concentrating, and paranoid, inappropriate or bizarre behavior. Clinical depression also may accompany early signs of dementia.

Possible Causes

Deteriorating intellectual capacity may be caused by a variety of diseases and disorders. The National Institute on Aging states that some 100 conditions which mimic serious disorders are actually reversible. These are sometimes called "pseudodementias," and are often treatable. Examples of conditions causing reversible symptoms of dementia are:

- **Reactions to Medications**—Older persons taking prescription drugs may suffer adverse reactions, including confusion. Sedatives, hypnotics, neuroleptics, antihypertensives and antiarthritic medications are among the most common. All medications, including over-the-counter drugs and herbal remedies, should be monitored by a physician to reduce the possibility of side effects.

    - **Emotional Distress**—Depression or major life changes such as retirement, divorce or loss of a loved one can affect one's physical and mental health. A physician should be informed about major stressful events.

    Severe delusional states should also be diagnosed by a psychiatrist.

- **Metabolic Disturbances**—Problems including renal failure, liver failure, electrolyte imbalances, hypoglycemia, hypercalcemia, hepatic diseases or pancreatic disorders can provoke a confusional state, changes in sleep, appetite or emotions.

- **Vision and Hearing—**Undetected problems of vision or hearing may result in inappropriate responses. This could be misinterpreted as dementia because an individual is unable to perceive surroundings or understand conversations. Hearing and eye examinations should be performed.

- **Nutritional Deficiencies—**Deficiencies of B vitamins (folate, niacin, riboflavin and thiamine) can produce cognitive impairment. Special attention should be given to patients who have difficulty in chewing, swallowing, or digesting food. Loss of taste and smell, loss of appetite, poorly fitting dentures or even difficulty shopping or preparing food may lead to nutritional deficiencies.

- **Endocrine Abnormalities—** Hypothyroidism, hyperthyroidism, parathyroid disturbances or adrenal abnormalities can cause confusion which mimics dementia.

- **Infections—**Older persons can develop infections which produce a sudden onset of a confusional state. This should be brought to the attention of a physician. Confusion caused by an infection is often treatable.

- **Subdural Hematoma** (blood clot on the surface of the brain)**—**Clots can form which create collections of fluid that exert pressure on the brain. These clots can be treated by draining the fluid before it has caused permanent damage.

- **Normal Pressure Hydrocephalus—**The flow and absorption of spinal fluid, which is manufactured inside the brain, is interrupted. When the fluid is not absorbed properly, it builds up inside the brain and creates pressure. Surgery can be performed to drain the spinal fluid into the bloodstream to relieve the pressure.

- **Brain Tumors—**Tumors in the brain can cause mental deterioration. Benign tumors can be surgically removed. For other tumors, a combination of surgery and radiation/chemotherapy can help the patient.

- **Atherosclerosis (hardening of the arteries)—**Intellectual impairment can result when a series of small strokes occurs (multi-infarct dementia). Although damage from small strokes is typically irreversible, built-up atherosclerotic plaques can be surgically removed or medically treated in order to prevent future strokes from occurring. If action is taken early enough, the person can be helped.

Certain conditions cause cognitive impairment which is not reversible. These include:

Traumatic Brain Injury—Traumatic brain injury can occur at any age. Trauma from a fall or an accident can precipitate personality, cognitive or behavior changes. If brain injury is mild, previous functioning may be restored over time. In cases of moderate to severe head trauma, brain impairment may be lasting. Careful attention should be paid to any blows to the head. Head injuries should be examined by a neurologist or rehabilitation specialist.

Cerebral Degenerative Diseases—If dementia is caused by a degenerative disease, progressive cognitive deterioration cannot be reversed. The most common irreversible dementia is Alzheimer's disease. Other degenerative diseases which can also cause dementia include dementia with Lewy bodies, Parkinson's disease, Huntington's chorea and Pick's disease. Other causes of intellectual impairment include cerebrovascular accidents (stroke), anoxia (loss of oxygen to the brain), Creutzfeld-Jakob's disease, Binswanger disease, AIDS and multiple sclerosis.

Diagnosis

To diagnose dementia, a complete medical and neuropsychological evaluation is recommended and a complete patient history is very important. Brain scans such as CT ("CAT" scans) or MRI (Magnetic Resonance Imaging) are an important

part of the process. PET (Positron Emission Tomography) and SPECT (Single Photon Emission Computed Tomography) are newer, less available techniques which cannot be done at all hospitals. Much of the diagnostic procedure is a process of elimination to rule out any treatable causes of dementia. In most cases, a definitive diagnosis is not possible until after an autopsy is performed. Nevertheless, diagnostic tests which rule out treatable causes of dementia are considered quite accurate when conducted by a qualified clinician.

Care

Chronic or irreversible dementia requires special care. Special arrangements and support must be offered to families who care for a dementia patient at home. Behavior management techniques (such as controlling wandering, disorientation, sleeplessness or incontinence), safety precautions for home care (such as attending to electrical appliances, car keys, supervision and doors that lock) and legal considerations (for arranging finances, conservatorships or durable power of attorney) should be attended to by family caregivers. Most care is provided at home but some patients may require placement in some type of residential facility in later stages.

Credits

Corey-Bloom, J., et al., 1995, Diagnosis and Evaluation of Dementia, *Neurology*, 45:211-218.

U.S. Department of Health and Human Services, 1992, *Third Report of the Advisory Panel On Alzheimer's Disease 1991*, Publication # (ADM) 92-1917, Washington, DC.

National Institute on Aging, 1996, *Forgetfulness in Old Age: It's Not What You Think*, U.S. Department of Health and Human Services, Washington, DC.

U.S. Congress, Office of Technology Assessment, July, 1990, *Confused Minds, Burdened Families*, Washington, D.C.

Recommended Readings

Brain Disorders Sourcebook, Karen Bellenir (ed.), 1999, Omnigraphics, Inc., Penobscot Bldg., Detroit, MI 48226, (800) 234-1340.

Care that Works: A Relationship Approach to Persons with Dementia, 1999, Jitka M. Zgola, Johns Hopkins University Press, 2715 N. Charles St., Baltimore, MD 21218-4319, (800) 537-5487.

Neurobiology of Primary Dementia, M.F. Folstein (ed.), 1998, American Psychiatric Press, Inc. 1400 K St. NW, Washington, D.C. 20005, (800) 368-5777.

How Your Brain Works, 1995, Anne D. Novitt-Moreno, M.D., Ziff-Davis Press, 5903 Christie Ave., Emeryville, CA 94608, (800) 688-0448.

Caring for a Person With Memory Loss and Confusion, 1995, Journeyworks Publishing, P.O. Box 8466, Santa Cruz, CA 95061, (831) 423-1400.

Dementia, P.J. Whitehouse (ed.), 1993, F.A. Davis Company, 1915 Arch St., Philadelphia, PA 19103 (215) 440-3001.

Resources

The National Institute of Neurological Disorders and Stroke
31 Center Drive, MSC 2540
Bldg. 31, Room 8A-06
National Institutes of Health
Bethesda, MD 20892-2540
(301) 496-5751
(800) 352-9424 (recording)
www.ninds.nih.gov

Alzheimer's Disease Education and Referral (ADEAR) Center
P.O. Box 8250
Silver Spring, MD 20907-8250
(301) 495-3311
(800) 438-4380
www.alzheimers.org

National Organization for Rare Disorders
P.O. Box 8923
New Fairfield, CT 06812
(203) 746-6518
(800) 999-6673
www.rarediseases.org

Reviewed by Francis W. Gillen, Director, Alzheimer's Disease Education and Referral Center. Prepared by Family Caregiver Alliance in cooperation with California's Caregiver Resource Centers, a statewide system of resource centers serving families and caregivers of brain-impaired adults. Revised September 1999. Funded by the California Department of Mental Health.