UNDERSTANDING LIGHT CHAIN AMYLOIDOSIS

Amyloidosis is a rare disease that occurs due to a buildup of protein in different vital organs throughout the body. The disease is often misdiagnosed and not well understood, so there is a growing need for education. Light chain amyloidosis is the most common type of amyloidosis. Read below for more information about the diagnosis and treatment of this disease.

This “Patient Education” tear sheet was produced in collaboration with the Amyloidosis Foundation (amyloidosis.org).

What is Amyloidosis?
Amyloidosis refers to several different types of diseases where abnormal proteins are produced. These protein fibers can attach and deposit into organs, tissues, nerves, and other places in the body, which affects normal function of the area. As the amyloid protein increases, health problems and organ damage may occur. When amyloid clusters together, it can occur in several places throughout the body (systemic) or gather in one specific area (localized).

The various types of amyloidosis have different treatment courses; therefore, the correct diagnosis is extremely important.

Understanding Light Chain Amyloidosis
In the United States, light chain, or AL, amyloidosis is the most common type, with approximately 4,500 new cases diagnosed each year. It usually affects individuals between 50 and 80 years old.

AL amyloidosis is caused by a bone marrow disorder. The marrow in the center of bones produces cells in the blood system, including plasma cells. In AL amyloidosis, these plasma cells produce an abnormal antibody, immunoglobulin protein.

Immunoglobulin proteins are composed of four protein chains: two light chains (either kappa or lambda light chains) and two heavy chains. In AL amyloidosis, the light chains become misfolded, and these misfolded amyloid proteins are deposited in and around tissues, nerves, and organs. As the amyloid builds up, it gradually causes damage and affects the function of the area where it accumulates. AL often affects more than one organ, though it does not affect the brain.

How Is AL Amyloidosis Diagnosed?
Diagnostic testing for AL amyloidosis involves blood tests, urine tests, and biopsies. Blood and/or urine tests can indicate signs of the amyloid protein and organ damage, but only bone marrow tests or other small biopsies can definitively diagnose amyloidosis.

Patient Resources from the Amyloidosis Foundation
The Amyloidosis Foundation was founded in 2003 to support medical and scientific research for amyloidosis and to raise awareness in hopes of leading to earlier diagnoses, to encourage research through grants, and to empower patients through a range of services, including up-to-date information on the disease. For more information on Patient Tools, educational webinars, treatment centers, and patient support portals, visit amyloidosis.org/resources.