Multiple Myeloma

Multiple myeloma is a cancer that begins in the plasma cells of the body. A plasma cell is a white blood cell, found in bone marrow, that generates antibodies and helps fight infections. Researchers do not know the cause of multiple myeloma and are still learning how plasma cells become cancerous. When myeloma develops, the cells can create tumors called plasmacytomas. A single plasma cell tumor is called solitary or isolated plasmacytoma. More diffuse disease is called multiple myeloma.

Statistics

- In the United States, one in 143 people will be diagnosed with multiple myeloma.
- In 2016, there will be approximately 30,330 new cases of multiple myeloma.
- Approximately 12,650 deaths are expected from the disease in the U.S. in 2016.
- In Texas, approximately 1,678 people were diagnosed with multiple myeloma, and an estimated 840 people died from the disease in 2015.

Risk Factors

Doctors do not know how to prevent multiple myeloma. However, there are several factors that may increase risk:

- **Age:** Multiple myeloma is more likely to be diagnosed in people over age 65.
- **Gender:** More men than women are diagnosed with the disease. This year, more than 5,000 more men than women will be diagnosed with multiple myeloma.
- Race: African-Americans are two times more likely to be diagnosed with the disease than Caucasians.
- **Family history:** People with immediate family members who have had multiple myeloma are at a greater risk for developing the disease.
- Other Conditions: Having solitary plasmacytoma or monoclonal gammopathy of undetermined significance (MGUS), a condition in which plasma cells make many copies of the same antibody, increases risk of developing myeloma. Those diagnosed with other plasma cell diseases may later develop multiple myeloma. Obesity and exposure to radiation also raises risk.

Symptoms

Patients in the early stages of multiple myeloma do not always show symptoms or symptoms may resemble those of other diseases. However, there are several symptoms which include:

- Bone pain, often located in the ribs, hips, skull or back
- Weak or easily broken bones
- Weakness, drowsiness, confusion, restlessness, or fatigue
- Persistent thirst or dehydration
- Unexplained weight loss or loss of appetite
- Nausea or vomiting
- Frequent or decreased urination

- Impaired kidney function or kidney failure
- Frequent infections and/or fevers
- Constipation
- Shortage of red blood cells (anemia), white blood cells (leukopenia), or platelets
- Abdominal pain
- Numbness and muscle weakness in legs
- Easily bruising or bleeding

Treatment

Treatment options for multiple myeloma vary depending upon the type of myeloma, severity, and stage of the disease, as well as the health and age of the patient. Anyone with multiple myeloma should consult a medical oncologist or hematologist about treatment. Options can include surgery, chemotherapy, targeted therapies, biologic therapy, other drug therapy, radiation therapy, immunotherapy, plasmapheresis, and stem cell transplants.

Sources: American Cancer Society, International Myeloma Foundation, Multiple Myeloma Research Foundation, National Cancer Institute, and Texas Cancer Registry

