

What is a Glioblastoma?

Senator John McCain was diagnosed with an aggressive form of brain cancer

Before yesterday's news, glioblastoma had little press despite being a very powerful cancer. Today, however, because of Senator John McCain's diagnosis, it is in the spotlight and everyone is wondering how serious it is and how it's treated.

Dr. Ricardo Komotar, FAANS, FACS, co-director of Sylvester Comprehensive Cancer Center Brain Tumor Initiative (BTI) describes a glioblastoma multiforme (GBM) as an aggressive malignant primary brain tumor.

"The term 'primary' means that the tumor starts in the brain and stays in the brain," he explains. A well-known authority on the cancer, Dr. Komotar has treated more than 500 patients with glioblastomas over the last five years.

Glioblastoma is the most common, complex, treatment resistant, and deadliest type of brain cancer, accounting for 45 percent of all brain cancers, with nearly 11,000 men, women, and children diagnosed each year, according to Defeat GBM, a National Brain Tumor Society initiative that aims to improve patient survival rates.

Symptoms of glioblastoma can include long term headaches, blurred vision, and nausea. Other symptoms, like speech problems or behavioral changes can vary depending on where the tumor is in the brain. Regardless of where the tumor is, however, the treatment remains the same.

The first step is to safely remove as much of the tumor as possible. Unfortunately, removing 100 percent of the tumor isn't really possible. "Some of the tumor always remains," says Dr. Komotar. "On a cellular level there are pieces of the cancer that cannot be seen by an MRI so it is difficult to remove all of it."

Approximately four to six weeks following surgery, patients begin chemotherapy and radiation treatment. But even still, GBM is a very serious terminal cancer and, on average, patients live only one to two years after diagnosis, even with treatment.

“After surgery, patients with glioblastoma usually receive a treatment with radiotherapy and a chemotherapy called temozolomide. Many clinical trials are now ongoing, with the hope to prolong patients’ lives,” added Dr. Antonio Omuro, co-director of the UMBTI, chief of neuro-oncology at Sylvester and one of the world’s experts in this disease. “One of the challenges in cases like Sen McCain’s will be managing the disease at an advanced age.”

Cancer Vaccine

The team at UMBTI is leading an important clinical trial - the development of a cancer vaccine that will attack glioblastoma. “This is a type of treatment that is catching on across the country called immunotherapy, using the body’s own immune system to attack cancer cells,” explains Dr. Komotar. “We use tissue from the patient’s brain tumor to create the vaccine.”

There is still a lot of discussion regarding immunotherapy in glioblastoma. The research is in the early stages but it is showing promise.

*To learn more about the clinical trials available through the Sylvester Brain Tumor Initiative, call 305-243-6946.