

## **Paralyzing Cancer before It Paralyzes You. Managing cancer-related spinal cord compression**

by Justin E Bird M.D.

The National Cancer Institute estimated that in 2011 there were over 13 million people living with cancer in the US. More recently, the Institute predicted that 1.6 million people would be newly diagnosed with cancer in 2014.

The good news is that through research and medical advances, many cancers can now be successfully treated, resulting in millions of cancer survivors. The not-so-good news is that many cancers spread to other parts of the body, and unless these spreading cancers – known as metastatic cancer – are identified and treated early, they can wreak havoc on the body and greatly diminish quality of life for survivors.

Cancer usually starts in organs such as the lung, breast, kidney, prostate and thyroid. It is very uncommon for cancer to initially develop within the musculoskeletal system which is comprised of nerves, bones, muscles and related connective tissues.

But it is common for cancers that start in the organs to spread to the skeleton. The skeleton is actually the third most common site of metastatic cancer. It can involve any bone of the skeleton; however, the spine is the most common site of disease.

Metastatic cancer of the spine can put pressure on the spinal cord, causing permanent nerve damage resulting in paralysis and/or bowel, bladder and sexual dysfunction. Early diagnosis and treatment are critical to prevent or reverse this.

Cancer survivors need to be aware of symptoms that could indicate they are developing metastatic cancer of the spine. Symptoms to watch out for are unrelenting back or leg pain, leg or groin numbness, difficulty initiating urination, and loss of bowel control. Anyone with a history of cancer who begins experiencing any of these symptoms should seek urgent medical attention.

The best way to diagnose spinal cord compression due to metastatic cancer is with an MRI. Treatment strategies are designed to maintain or improve the stability of the spine and nerve functions and to control pain and tumor growth. Treatment may include intravenous steroids, radiation therapy and surgery.

Most metastatic spinal cord compression cases are successfully treated with a combination of steroids and radiation therapy alone. There is some evidence, however, to suggest that surgery improves outcomes; but there is a lot of controversy regarding who exactly will benefit from surgery. Recent data seems to suggest that surgery is being used more and more, particularly in older, sicker patients, even though the risks of surgery likely outweigh the benefits.

As a researcher in the Comparative Effectiveness Research on Cancer in Texas (CERCIT) project, I am trying to better understand the patterns of use of surgery among the elderly population with cancer-related spinal cord compression. Through this project, I am collaborating with a team of population-based researchers from the University of Texas Medical Branch, the University of Texas MD Anderson Cancer Center, Rice University and the Texas Cancer Registry.

We hope to learn whether patients do better if the cancer is treated with both radiation therapy and surgery, or if it is better to use radiation therapy alone. This information will ultimately help patients, their caregivers, and healthcare providers make better treatment decisions in the management of cancer-related spinal cord compression.

*Dr. Justin Bird is an assistant professor in the Department of Orthopaedic Oncology and Spine Surgery at the University of Texas MD Anderson Cancer Center.*