Diagnosis and Treatment of Primary Spinal Cord Tumors

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DESCRIPTION

Primary spinal tumors are those that arise from the spine. Malignant tumors can also start in the spine, but they usually spread there from elsewhere in the body. Spinal tumors are benign tumors that develop in the vertebral column or the spinal cord. Spinal tumors are divided into three categories based on their location: extradural, intradural, and mixed (intradural-intramedullary and intradural-extramedullary). Extradural tumors are those that are found outside the dura mater lining and are usually metastatic. Intradural cancers are those that develop within the dura mater lining and are further classified as intramedullary or extramedullary tumors. Intradural-intramedullary tumors are those that are positioned inside the dura and the spinal cord parenchyma, whereas intradural-extramedullary tumors are those that are located within the dura but outside the spinal cord parenchyma. Nocturnal back pain is the most typical symptom of a spinal tumor. Muscle weakness, sensory loss, and difficulties walking are also common complaints. In the later stages of the disease, bowel and bladder control may be lost.

DIAGNOSIS

Spinal tumors are commonly ignored because they are uncommon and their symptoms are similar to those of more prevalent illnesses. As a result, it’s critical that your doctor knows your entire medical history and performs both general physical and neurological examination.

X-ray

The use of radiation to create a film or photograph of a body component can reveal the structure of the vertebrae and the contour of the joints. X-rays of the spine are taken to look for other potential reasons of pain, such as tumors, infections, fractures, and so on. X-rays, on the other hand, are not very accurate in detecting cancers.

Computed Tomography (CT) scan

A Computerized Tomography (CT) scan is a diagnostic image produced by a computer after reading X-rays. It can indicate the shape and size of the spinal canal, its contents, and the structures surrounding it. It is also highly effective in visualizing bone structures.

Magnetic Resonance Imaging (MRI)

A diagnostic technique that uses powerful magnets and computer technology to create three-dimensional photographs of body structures. An MRI can detect enlargement, degeneration, and tumors in the spinal cord, nerve roots, and adjacent areas, as well as enlargement, degeneration, and malignancies.

TREATMENT METHODS

The knowledge of spine surgeons, medical oncologists, radiation oncologists, and other medical professionals is frequently used in treatment decision-making. The choice of therapies, both surgical and non-surgical, is thus determined with the many components of the patient’s overall health and care goals.

Non-surgical treatments

Observation, chemotherapy, and radiation therapy are nonsurgical therapeutic options. Regular MRIs can be used to observe and monitor tumors that are asymptomatic or slightly symptomatic and do not appear to be changing or progressing. However, certain types of metastatic tumors (gastrointestinal tract and kidney) are naturally radio resistant; in these circumstances, surgery may be the only viable therapeutic option.

Surgery

Primary (non-metastatic) spinal tumors can be removed completely en bloc for a possible cure. Treatment is generally palliative in patients with metastatic tumors, with the goal of restoring or preserving neurological function, stabilizing the...
spine, and relieving pain. Surgery is generally recommended for patients with metastases who are likely to live 3-4 months or longer and whose tumor is resistant to radiation or chemotherapy.