7 Symptoms of Tumor Lysis Syndrome

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Tumor Lysis Syndrome Symptoms

It’s possible you have never heard of tumor lysis syndrome (TLS) because it is a rare condition, but when it happens it is a medical emergency. This article dives into tumor lysis syndrome symptoms, causes and treatment options.

What is Tumor Lysis Syndrome?

Tumor lysis syndrome happens when a huge number of malignant cancer cells die and release substances into the bloodstream. The substances are cells that have died and are spontaneously released. This often happens after the patient has received chemotherapy treatment.

Levels of various minerals and electrolytes in the blood rise, including uric acid, potassium, phosphorus and calcium. The kidneys cannot process the huge volume of cells that have been released quickly, making it an extremely dangerous condition that can cause serious complications and even death.

It usually occurs when children or adults have a blood-related cancer, such as leukemia, non-Hodgkin’s lymphoma and hepatoblastoma. It can also be caused by non-cancerous conditions, such as myeloproliferative disorders, where large numbers of abnormal red or white blood cells or platelets are found.

What Are the Top 7 Symptoms of Tumor Lysis Syndrome?

The symptoms of tumor lysis syndrome can be mild at first, and many are also side effects of chemotherapy treatment. It can be diagnosed by performing blood tests (a full blood count), checking uric levels in the blood and conducting a urine analysis.

Here are the top seven symptoms for tumor lysis syndrome, along with more information about each one.

1. Nausea, Vomiting or Diarrhea

You may initially report feeling sick or being sick, which can be accompanied by diarrhea. This can be mild initially but then get worse over time, as the chemicals build up in the blood and cannot be flushed away by the kidneys. These are symptoms of hyperkalemia, which is caused by high levels of potassium in the blood.

2. Weakness, Lethargy or Fatigue

It’s quite common to feel weak or fatigued during cancer treatment, but this is also one of the most typical symptoms of tumor lysis syndrome. The patient may also report a lack of appetite, which again is usually associated with chemotherapy.

3. Numbness, Tingling or Muscle Cramping

Tumor lysis syndrome can cause low levels of calcium, which causes muscle twitching or cramping or numbness. You might feel a tingling sensation in your fingers and toes too, which is again caused by the lack of calcium.

4. Changes in Urine

You could experience changes in your urine as a result of tumor lysis syndrome. It could become dark, or cloudy, or you could urinate much less than usual.

The higher levels of uric acid can also cause kidney stones and other damage.

5. Joint Pain

The increased uric acid in the bloodstream can form crystals and cause inflammation and joint pain, which can even develop into gout. Gout is a form of arthritis that causes sudden, severe pain and swelling in joints.

6. Restlessness or Irritability

Another symptom of tumor lysis syndrome is a general irritability, or restlessness. You can experience hyperirritability if your blood is too alkaline (known as alkalosis). You may have restless legs, also known as restless leg syndrome, which is an uncomfortable condition where you feel compelled to move your legs.

7. Confusion, Delirium or Hallucinations

You could also experience confusion with TLS, much like you could with a UTI (urinary tract infection) or kidney infection. It’s a typical neurological response and is as a result of a lack of potassium and calcium.

What Are the Causes of Tumor Lysis Syndrome?

Tumor lysis syndrome develops during chemotherapy treatment for certain cancers. It can occur quite quickly after the chemotherapy is delivered but is usually noticed within two to three days. This is when the highest number of cancer cells are being destroyed and they are releasing substances into the blood.

Other forms of treatment can also trigger TLS, including radiotherapy, hormone therapy and corticosteroids, which are man-made hormones.

What Treatment is Available for Tumor Lysis Syndrome?

If your cancer is deemed to be high-risk for tumor lysis syndrome, then your medical team should try and prevent it from happening in the first place. This is mainly done by ensuring your body has plenty of fluids, which can be given intravenously. Your urine output will be closely monitored, and a diuretic may be prescribed. You should have regular blood tests to measure the levels of various minerals and chemicals to ensure a buildup does not occur.

If you are diagnosed with TLS, then you may be prescribed a drug that lowers the uric acid levels in your body. There’s also medicine available to prevent uric acid crystals forming in your joints.

In extreme cases you may need dialysis if the TLS cannot be treated successfully, or your kidneys fail. The dialysis machine works by removing the waste products in your blood when your kidneys cannot perform this function.