



WHAT IS TUMOR LYSIS SYNDROME?

Tumor lysis syndrome is a rare condition that can happen due to the rapid death of cancer cells. When the cancer cells are killed, the debris from inside the cells enters the bloodstream. Tumor lysis syndrome occurs when the cancer cells are killed so quickly that the body does not have time to clear out this debris. This process can cause blood electrolyte levels (including potassium, phosphorus, calcium, and uric acid) to become off balance. Sudden changes in these electrolyte levels can lead to kidney failure, heart arrhythmias, and seizures. Tumor lysis syndrome is a very serious condition requiring urgent medical treatment and it can be life threatening if left untreated.

WHAT CLL AND SLL TREATMENTS CAN LEAD TO TUMOR LYSIS SYNDROME?

Venetoclax and Obinutuzumab, given alone or in combination, have been shown to cause tumor lysis syndrome. Chemotherapy drugs have also been associated with tumor lysis syndrome, although chemotherapy is not commonly used any longer to treat CLL or SLL. Tumor lysis syndrome can occur with other treatments, but the incidence of this is extremely rare.

WHEN DOES TUMOR LYSIS SYNDROME TYPICALLY OCCUR?

It can occur upon treatment initiation, when your dosage of a drug is increased (sometimes called a ramp-up phase), or when the medications mentioned above are restarted after they have been temporarily stopped. The risk for tumor lysis syndrome is known to be higher for those with poor kidney function, enlarged lymph nodes, high lymphocyte counts (a type of white blood cell), or high uric acid levels in the blood.

WHAT ARE THE SYMPTOMS OF TUMOR LYSIS SYNDROME?

Some people with tumor lysis syndrome will have no symptoms at first, only abnormal laboratory blood test findings. However, symptoms may include:

- Diarrhea
- Nausea
- Vomiting
- Fever (greater than 100.4 degrees Fahrenheit)
- Lack of appetite
- Muscle twitching or cramping
- Joint pain
- Decreased urine production
- Low blood pressure
- Fainting
- Irregular heartbeat, such as skipping or flutters
- Seizures

Report any new or unusual symptoms to your healthcare provider promptly and seek medical

evaluation if you have an irregular heartbeat, fever, muscle twitching or cramping, joint pain, decreased urine production, or if you generally feel unwell. Call 911 or go to your nearest emergency room right away if you experience a seizure, fainting, irregular heartbeat, chest pain, or other emergency.

CAN TUMOR LYSIS SYNDROME BE PREVENTED?

With close monitoring and some preventative actions, the chance of tumor lysis syndrome occurring can be greatly reduced. Prior to starting treatment your medical team will draw blood and perform some other tests to measure the size of your lymph nodes and spleen. This will help your healthcare provider determine your risk of developing tumor lysis syndrome.

Based on your risk (and since many people with tumor lysis syndrome do not have any symptoms at first), your healthcare provider may want you to be hospitalized when treatment is being started or when your medication dosage is increased. This will allow for close monitoring during the time when you are at risk for developing tumor lysis syndrome. Intravenous (IV) fluids (given directly into a vein via an IV) can be used to help flush out the excess debris from your system and protect your kidneys.

WHAT CAN I DO TO DECREASE MY CHANCES OF HAVING TUMOR LYSIS SYNDROME?

You can help prevent tumor lysis syndrome by staying well hydrated (drink at least 60 ounces of water every day). During the time you are most at risk for tumor lysis syndrome, you should avoid electrolyte repletion drinks/supplements and excess vitamins. Your health care provider may recommend a drug called allopurinol (or another equivalent medication) to prevent the buildup of uric acid in the blood. It is critical to take all medications exactly as prescribed and follow your medical team's instructions.