LUNG CANCER CANADA

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Fact Sheet: Lung Cancer Can Affect Your Bones

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Introduction

Lung cancer can spread to other parts of the body. A recent Canadian study showed that over half of all people with advanced lung cancer will have cancer spread to the bones, also known as "bone metastases".[1]

Bone metastases can cause many problems that may decrease quality of life and survival. The most common problems are pain and broken bones (fractures). Cancer in the bone may also press on the spinal cord, causing nerve damage. This can result in back pain, numbness and tingling in the legs or body, leg weakness, trouble urinating, and even paralysis. Bone metastases can also cause high blood calcium levels, called "hypercalcemia". People with hypercalcemia may experience nausea, constipation and thirst, and be sleepy and confused. Many people with these problems need treatment with radiation or surgery, and in some cases, drug treatment. These complications are often called "skeletal-related events" or SREs.

Finding out if lung cancer has spread to the bone

If you experience bone pain or other symptoms your doctors can do tests (X-rays, CT scans, MRI, or bone scans) to look for lung cancer spread to the bone. They can also check for problems such as fractures or spinal cord compression. They will also check your blood calcium level.

Treatment of bone metastases

If your lung cancer has spread to the bones, there are many different treatment options. Which ones are right for you depends on many things, and your doctors can help you decide. People with bone metastases are now living longer with the help of effective treatments directed at their lung cancer. [1] You should discuss with your doctor whether receiving chemotherapy either through an intravenous or a pill is an option for you, and whether other options should be considered, such as radiation or surgery.

Radiation treatment is often given for relief of pain, and treatment of cancer pressing on the spinal cord.

Surgery may be necessary to fix a broken bone (fracture), or to prevent future fractures in a bone that is weakened from cancer.

There are also drug treatments that specifically target bones. Two types of drugs have been studied in people with bone metastases from lung cancer. The first type is bisphosphonates, also widely used for osteoporosis, and the second is a drug called denosumab. Both target bone destruction from cancer. Bisphosphonates (for example, zoledronate or pamidronate) are given by injection into a vein (intravenous), and denosumab is given by injection under the skin (subcutaneous). These drugs act in different ways, but both have been shown in clinical trials to reduce the risk and delay the onset of SREs, as well as improve pain control and quality of life. [2-4]

What else can you do to maintain bone health?

A healthy diet and regular weight bearing exercise can help maintain strong bones. Calcium and vitamin D supplements are also recommended for most people with bone metastases, particularly if you are being treated with a bisphosphonate or denosumab. They are also recommended if you are taking any medications that are known to weaken the bones, for example steroids. You should talk to your doctor about whether taking calcium and vitamin D is a good idea for you.

References:

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4. Henry DH et al. Randomized, double-blind study of denosumab versus zoledronic acid in the treatment of bone metastases in patients with advanced cancer (excluding breast and prostate cancer) or multiple myeloma. J Clin Oncol. 2011; 29: 1125-32.