

Giant Cell Tumor

Giant cell tumors of the bone is a rare type of an aggressive non-cancerous tumor. It often occurs in those who are between 20 and 40 years of age. A giant cell tumor is rarely seen in children or adults who are older than 65 years old. They tend to occur in about one person out of every million per year.

Giant Cell Tumor Anatomy

The giant cell tumor garnered its name for the way it looked under a microscope. Many different giant cells are easily seen. They are formed when several of the individual cells fuse into a single, larger cell. Many tumors and other medical conditions are composed of giant cells. Giant cell tumors get their signature appearance by constantly finding a large amount of cells that exist within a typical background.

Most tumors occur within the flared part along the ends of the longer bone, but the giant cell tumor tends to occur in the end part of the longer bones near the joints. They frequently occur around the knee joint in the lower part of the femur and the upper part of the tibia. Other common locations are the hip, wrist, shoulder and the lower back. In rare situations, the tumor can end up spreading to the lungs.



How to Treat a Giant Cell Tumor:

1. Nonsurgical Treatment

Radiation therapy tends to be one of the best nonsurgical treatment methods. This particular form of treatment can cause cancer to form in up to 15 percent of all those who use this treatment method. Radiation therapy tends to only be used in cases where surgery cannot be performed effectively and safely.

2. Surgical Treatment

Scooping out of the tumor is often performed. This particular technique can cause a hole in the bone that needs to be filled in with a bone graft. To fill the hole, the bone can be taken from other parts of the body or using a cadaver.

If treatment is restricted to bone grafting and curettage alone, tumors can end up coming back in up to 45 percent of the cases. Using bone cement over that of a bone graft can result in a lower chance of the tumor coming back.

Enhancing the curettage using a high-speed burr, hydrogen peroxide, liquid nitrogen or phenol, followed with bone cement will help to decrease the recurring rate to between 10 and 29 percent. In cases of a more complex removal, reconstruction might be necessary when extensive damage has occurred.

Tips:

- Giant cell tumors can occur without warning.
- Tumors aren't associated with diet, environmental factors or trauma.
- A giant tumor isn't inherited.
- In rare instances, these tumors are associated with that of hyperparathyroidism.
- Most of the time, the first symptom patients notice is pain within the site of the tumor. Pain is often felt when a surrounding nearby joint moves.
- Pain tends to increase slowly with any activity and will decrease with rest. It tends to be mild at first, but it will become increasingly worse.