

Constant Endeavour to create more awareness on **SARCOMAS**

Swellings arising from the bone and muscles are always not tumours, but can occasionally be cancers too, known as Sarcomas. If not timely treated, the swelling in the cells can spread to other body organs. Hence, timely and correct treatment is extremely important for good outcomes in this condition. The rarity of sarcoma develops mostly into a lump or mass known as a tumour. Long enough for cancer cells to existing in the body, they can spread (invade) into surrounding regions. They may even spread to various body regions (metastasis). Health expert from Paras Hospital suggest the most effective ways to identify and treat the disease. Facts: 3,330 people contract with a soft tissue sarcoma each year (including GIST), Each year, 500 people diagnosis with a bone sarcoma



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BONE and Soft tissue Cancers also known as Sarcomas, as we call in medical terminology, are rare forms of cancers. There is no awareness about this disease among the public as well as in the medical fraternity. Sarcomas can be of more than 70 different subtypes, and can arise from various parts of our body like the bone, cartilage, muscle, fat, nerves, vessels and synovial lining of our joints.

Cancers happen in the body when there's an unregulated growth of particular form of cells which escape the natural cell cycle. What causes Sarcomas is still unclear with no particular risk factor or etiology. In few cases some hereditary factors, genetic mutations or certain drugs or radiation exposure can be linked to these cancers.

Primary Bone Cancers tend to affect children more, especially in the growing and adolescent age groups, while some types of Bone Cancers

like Chondrosarcoma are seen in adults more often. The most common symptom of Bone Cancer is bone pain, which is sudden in nature, and can be severe at times. A child complaining of joint pain/ bone pain without any history of injury is unusual

and parents should never ignore these symptoms. Soft tissue Sarcomas or Cancers arising from other connective tissues in our body other than Bones also are commonly encountered in adults. These present initially as growing lumps or bumps which can either be painless or painful. Many times, patients suffering from other cancers in other organs of body like Breast, Lung, Prostate etc can spread cancer cells to bones in advanced stages presenting as painful bone lesions called Bone Metastases/ Secondary bone cancer with large swellings and even sudden pathological bone fractures without any history of any significant injury.

Seeking medical attention at an early stage is important for successful treatment and cure of sarcomas. Orthopedic Oncologists play an important role in initial and definitive surgical management of these Cancers. After doing a clinical examination, certain imaging tests like X-rays, Ultrasound, CT and MRI scans are conducted to better understand these tumors and swellings. This is usually followed by undertaking a Needle Biopsy to find their nature, grade and type of sarcoma.

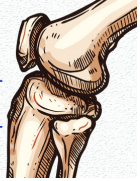
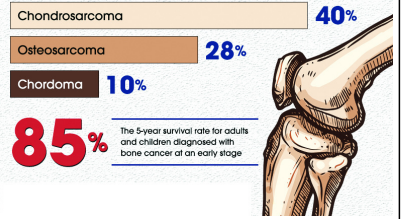
According to Dr Virk, "Biopsy is safe, mandatory and a painless procedure, if got done from a proper cancer centre from an Orthopedic Oncologist who is ultimately going to undertake the definitive surgery". It is performed through a Needle as a day-care procedure, and is an integral part in managing these cancers.

Once diagnosed with Sarcoma, staging investigations like Whole-Body PET-CT are done to stage the cancer. Treatment of sarcomas is usually multi-modal with Chemotherapy, Surgery and Radiation therapy playing an important role. Limb Salvage surgeries have replaced amputations in most cases nowadays.

In earlier times, when there was lack of technology and equipment the only treatment to this disease was Amputation surgery which involved cutting the limb above the tumor whether in leg or arm. Despite a debilitating surgery, the survival rate or prognosis of such patients' was dismal.

ADVERTORIAL

Most common types of bone cancer in adults



With time there has been a complete transformation in diagnosing these life-threatening cancers at an early stage and successfully treating and providing a cure in majority of such patients. The improvements in our diagnostic imaging modalities like MRI and PET-CT scans, chemotherapy drugs and refinement in our surgical techniques have contributed to this transformation. Also, with newer technologies like Computer-assisted tumor surgeries (CATS), Navigation and 3D-printing have revolutionized on how surgeons approach these problems now.

According to Dr Virk, 90-95% of patients diagnosed to have bone and soft tissue cancers also called Sarcomas, can now be offered special Limb Salvage Surgeries or Limb Preservation Surgeries if detected at an early stage. These surgeries mainly involve 2 parts: Resection- That is safely removing out the tumor /cancer affected bone and Reconstruction which involves filling up the defect left behind after removal of the tumor.

The availability of modular metallic prostheses used in such surgeries also called Tumor prostheses and Endoprostheses, have initially contributed in giving a patient near normal limb and also a good

function. As per Dr Virk, many a times Biological methods for reconstructing the tumor defect involving use of allograft/cadaveric bones or recycled autografts can also be employed to give the patient a natural function. Recycling means sterilizing/cleaning the cancerous bone which has been taken out free of all cancer cells and re-implanting the same bone back. Various techniques for sterilizing the tumour bone like ECRT (Extracorporeal Radiation Therapy) or Cryotherapy (using Liquid Nitrogen) are employed. As Per Dr Virk, these are quite reliable and quick methods for obtaining same and symmetrical or well-fitting grafts for tumour defect reconstruction. He has employed this technique in a good number of patients with excellent functional results.

Dr Virk has performed more than 350 Bone tumour and sarcoma surgeries in the last 3 years with successful Limb Salvage or Preservation in majority of them. Seeking medical attention at an early stage is important for successful treatment and cure of sarcomas. Orthopedic Oncologists play an important role in initial and definitive surgical management of these Cancers and the option to save the cancer affected limb in the form of Limb Salvage Surgeries has given a new ray of hope to Bone Cancer patients.

"Sarcoma Awareness Month" is observed every year in July month. On this day Dr Virk took an initiative to create more awareness of "Sarcomas."

Signs and symptoms of bone cancer

- Chondrosarcoma**
Increasing pain • A swelling or palpable mass • Fracture due to weakened bone
- Ewing Sarcoma**
Pain, swelling, or tenderness • Bone pain • Unexplained fevers
- Osteosarcoma**
Swelling near a bone • Bone or joint pain • Bone injury or break for no clear reason

