

A B C D E F G H Children's Health

Shriners Hospital Focuses On Children's Bone Tumors

by J. Ivan Krajchich, M.D.

(NAPSA)—The words “tumor,” “malignant” and “cancer,” when delivered by a healthcare professional, can be devastating—even more so when a child is involved.

Shriners Hospital for Children in Portland, OR, recently focused a portion of its medical care on children with bone cancer. In 1994, a partnership was formed between Shriners Hospital and the department of pediatrics at Doernbecher Children's Hospital at Oregon Health Sciences University. Together, the two facilities launched a pilot bone tumor program to treat children afflicted with malignant bone tumors.

Two of the most common types of bone cancer that strike children between the ages of 10 and 20 are osteosarcoma and Ewing's sarcoma. Osteosarcoma occurs frequently in the knee area, although it can occur in any bone and can spread to the lungs. Ewing's sarcoma consists of tumors that can affect any bone in the body. These tumors are very painful and, if left untreated, can spread to the lungs and/or other bones.

Once a child has been diagnosed with a malignant tumor, the bone tumor team maps out a treatment regimen. The multidisciplinary team consists of an orthopaedic surgeon specializing in tumor and limb salvage surgery, a pediatric medical oncologist, team coordinator, physical therapist, occupational therapist, general surgeon, radiation oncologist, nutritionist, prosthetist, pediatric radiologist, child life specialist, social worker, and inpatient and outpatient nurses familiar with the treatment of sarcomas.



At the Portland Shriners Hospital, Neal Turner of the orthotics and prosthetics department makes some minor adjustments on Cheyenne's new prosthetic leg.

For most children, treatment includes two to three months of chemotherapy, followed by a surgical procedure to remove all the cancerous tissue, leading to the best function possible for the limb and several months of chemotherapy. The surgical procedures and limb reconstructions can be quite complicated and vary widely, depending on the location of the tumor, involvement of the adjacent joint and the child's age.

The goal of reconstruction is to preserve the child's major joint (e.g., knee or hip) whenever possible. In such cases, bone lost to tumor can be replaced by a bone transplant, with an expected very good functional outcome. Unfortunately, in the majority of children with osteosarcoma, if the knee joint has a tumor, the joint usually has to be removed. As such, a metal-plastic artificial joint is the most commonly used replacement, although the lifespan of these

devices is limited because of the wear and tear imposed by active children.

The only other option available for a non-artificial joint is a procedure referred to as the modified Van Nes rotation plasty. In this kind of reconstruction, the ankle is used as a substitute for a knee. The foot is then fit into a prosthetic socket; the child, who would otherwise require an above-knee amputation, functions as a below-knee amputee and is able to participate in many athletic activities.

In the majority of patients, treatment and rehabilitation have been quite successful, with more than 90 percent of osteosarcoma patients and in excess of 80 percent of the Ewing's sarcoma patients who are alive and presently disease free. Many of the children have been disease free for at least five years since their initial treatment—a time interval usually considered evidence of a cure. None of the patients in the program thus far have had recurrence of a local tumor.

For more information on Shriners' network of 22 hospitals that provide free treatment to children with orthopaedic problems, burns and spinal cord injuries, write to: Shriners International Headquarters, Public Relations Dept., 2900 Rocky Point Dr., Tampa FL 33607, or visit the Web site at www.shrinershq.org.

If you know a child Shriners can help, call 1-800-237-5055 in the United States or 1-800-361-7256 in Canada. Shriners Hospitals provide free treatment to children under age 18 without regard to race, religion or relationship to a Shriner.