Sarcoma - Current Research

This section has been reviewed and approved by the Cancer.Net Editorial Board [1], January / 2013

Latest Research

Doctors are working to learn more about sarcoma, ways to prevent it, how to best treat it, and how to provide the best care to people diagnosed with this disease. The following areas of research may include new options for patients through clinical trials [2]. Always talk with your doctor about the diagnostic and treatment options best for you.

Proton or particle beam radiation therapy. Proton therapy (also called proton beam therapy) is a type of radiation treatment that uses protons rather than x-rays. At high energy, protons can destroy cancer cells. Protons travel only the desired distance in tissue, allowing doctors to target the radiation much more precisely at the tumor and deliver a smaller dose to surrounding healthy tissue. This procedure is currently only available in a few specialized cancer centers in the United States and is most commonly used in areas of the body where there are vital organs or structures nearby, such as the brain or spinal cord. Learn more about proton therapy [3]. Radiation treatment with heavier charged particles, known as carbon ions, are being used and studied for the treatment of sarcomas in Japan and Germany.

Improved drug delivery. Some chemotherapy drugs are incorporated into fat molecules called liposomes to improve the absorption and distribution of the drug in the patient?s body.

New chemotherapy drugs. New chemotherapy is being developed and tested that may be effective in treating some subtypes of STS. An example is trabectedin (Yondelis), which has been approved in Europe. Trabectedin has been shown to have a very high level of activity in the treatment of a specific subtype of liposarcoma called myxoid-round cell liposarcoma. However, in the United States, FDA only allows patients access to it under special circumstances. Eribulin (Halaven), a drug approved for treatment of breast cancer, has shown promising results in an early trial in Europe and is now being investigated in a large, international study. Researchers are also working to find versions of standard chemotherapy to treat sarcoma that cause fewer side effects. An example is three new versions of ifosfamide?called palifosfamide, glufosfamide, and TH-302?that are being studied in ongoing clinical trials. Learn more about drug development and approval [4].

Targeted therapy. As explained in the Treatment [5] section, imatinib and sunitinib, types of drugs called tyrosine kinase inhibitors, are the first targeted (kinase-specific) therapies approved to treat specific types of sarcoma, most commonly GIST. Pazopanib (Votrient) was recently approved for use in sarcomas other than liposarcoma and GIST in situations where other chemotherapy is not working. Currently, researchers are identifying new kinase inhibitors to use for an individual patient and the order that the drugs should be used in a patient?s treatment plan.

Regorafenib is a new targeted therapy with significant activity in patients with advanced GIST [6] who have already been treated with imatinib and suntinib. The FDA is currently reviewing a phase III clinical trial of this drug.

Other clinical trials are looking at a type of targeted therapy called anti-angiogenesis therapy [7]. It is focused on preventing the formation of new blood vessels in order to starve the tumor of the oxygen and nutrients it needs to grow.

Targeted oncogene treatments. Drugs are being researched that may block one or more of the proteins found in tumor cells that help the tumor grow and spread.

Genetics. Researchers are learning that some sarcomas have unique genetic ?fingerprints.? Understanding these fingerprints may help doctors determine better treatments and possibly better predict a patient?s prognosis.

Supportive care. Clinical trials are underway to find better ways of reducing symptoms and side effects of current sarcoma treatments in order to improve patients? comfort and quality of life.

Learn more about common statistical terms used in cancer research [8].

To find clinical trials specific to your diagnosis, talk with your doctor or search online clinical trial databases now [9].

Links:
[1] http://www.cancer.net/about-us
[2] http://www.cancer.net/node/19612
[3] http://www.cancer.net/node/24521

[4] http://www.cancer.net/node/24505
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