FIGHTING CANCER WITH IMMUNOTHERAPY

The Search for Cancer's Magic Bullet

There Were Over 1.6 Million Cases of Cancer Diagnosed in the U.S. in 2015

In the ongoing search for better treatments, many are adding immunotherapy to their cancer-fighting arsenal. Please share this guide with your patients to help them understand more about this treatment option and how it is being used to wage the war against cancer.

01 | Immunotherapy – What It Is

Whereas more commonly known forms of cancer treatment, such as radiation and chemotherapy, destroy cancer cells by introducing foreign materials into the body, immunotherapy is designed to boost the body's own defenses to fight cancer. With immunotherapy, the immune system can work better at destroying cancer cells, stop or slow the growth of cancer, and help stop cancer from spreading to other parts of the body.

02 | A Unique Approach

With cancer, the body's immune system fails to fight the tumor because it is not recognized as a foreign body. This is known as tumor tolerance. In cases where the immune system recognizes cancer cells, the immune system's response may not be strong enough to destroy the cancer, and, in addition, the tumor actually has the ability to defend itself. Therefore, immunotherapy is a significant step in fighting cancer because it boosts the immune system, allowing it to become more effective in fighting the cancer.

03 | Types of Immunotherapy

There are several types of immunotherapy:

- **Monoclonal Antibodies**: Antibodies are proteins that fight infection – monoclonal antibodies are designed to attach to specific proteins in a cancer cell to allow the immune system to destroy it.
- **Non-Specific Immunotherapies**: Interferons and Interleukins slow the growth of cancer cells and help the immune system produce cells that destroy cancer.
- **Cancer Vaccines**: Vaccines expose the immune system to an antigen which triggers the immune system to destroy that material.
- **Oncolytic Virus Therapy**: With this treatment, a specially designed virus is injected into the tumor which replicates and triggers the immune system to attack the cancer cells.

04 | What to Expect

In most cases, therapies are given in an outpatient setting, over several weeks. The drug is delivered intravenously, and other drugs may be prescribed by your medical provider to reduce side effects. Common side effects include chills, fatigue, headache and nausea.

05 | Be Informed

Immunotherapy, like other forms of cancer treatment, is a complex subject and you should be well informed about all of your options. Be prepared when you visit your medical provider – make a list of questions and don't be afraid to speak up. For more information on immunotherapy, please visit: http://www.lls.org/treatment/types-of-treatment/immunotherapy

Did You Know?
The 5-year survival rate of all cancers combined is 68%

References

http://www.cancer.net/navigating-cancer-care/how-cancer-treated/immunotherapy-and-vaccines/understanding-immunotherapy

http://www.cel-sci.com/introduction_to_cancer_immunotherapy.html