Study shows body fat is a safe haven for cancer cells; reducing excess fat can help beat the disease

By: Daniel Barker

(NaturalNews) Obese cancer patients typically fare worse than their leaner counterparts, and a new study may shed light on the reason why.

A team of researchers from the University of Colorado Cancer Center who studied the behavior of leukemia stem cells in mice found that the cells had the ability to "hide" in fatty tissue and could even transform the surrounding tissue in ways that made it act as a defense against chemotherapy.

Fatty tissue is a 'robber's cave' for leukemia stem cells
The fatty tissue used by the leukemia stem cells has been likened to a "robber's cave" in which the cancer cells can not only hide, but can also "actively adapt this cave to their liking," according to a University of Colorado Cancer Center blog post.

University of Colorado researchers wrote:

"It's been increasingly appreciated that cancer can originate in stem cells and that failing to kill cancer stem cells can lead to relapse. Researchers have also come to appreciate the importance of surrounding tissues – the 'niche' or tumor microenvironment — in supporting cancer stem cells. In leukemia, the obvious niche is the bone marrow, but little attention has been paid to other sites in the body. This study is one of the first to evaluate adipose tissue, fat, as a possible tumor-supporting niche."
The study's lead researcher, Haobin Ye, PhD, followed a "very original and insightful" line of reasoning in setting up the study, according to his colleague, Craig Jordan, PhD.

Dr. Ye based his approach on three observations. First, that obese leukemia patients typically have poorer outcomes regarding treatment. Second, the fact that "stem cells drive growth, resist therapy and can create relapse in leukemia." Third, the fact that the "tumor microenvironment" is a key factor for the growth and survival of leukemia stem cells.

The connecting common thread between these three factors appears to be adipose (fatty) tissue.

As noted by Garth Sundem in the CU Cancer Center blog post:

"At the intersection of obesity, stem cells and tumor microenvironment is adipose tissue – could stem cells in fatty tissue cause poorer prognosis in obese patients?"

The research team plans to carry out further studies on mice with varying amounts of fatty tissue to learn more about the connection between obesity and cancer.

**The cost of obesity**

Obesity is a significant contributing factor to numerous health problems, including heart disease, diabetes, hypertension, stroke, osteoporosis and cancer.

The cost of obesity is enormous – some have estimated that the yearly healthcare cost of obesity in the United States is more than $200 billion.

Obesity is one of the biggest factors leading to preventable chronic diseases. Obese adults spend 42 percent more on direct healthcare costs than do those with healthy weights, and the per capita healthcare cost for morbidly obese adults is 81 percent higher than for adults with healthy weights.

Unfortunately, Americans continue getting fatter. More than a third of adults in the United States are obese, and two-thirds are either overweight or obese. The number of overweight Americans has dropped slightly over the past few years, but the number of obese people continues to rise.

And, as waistlines grow bigger, disease rates climb as well. The Centers for Disease Control (CDC) predicts that by 2050 more than one-third of Americans may become diabetics.

For most people obesity can be overcome through diet and exercise. The unhealthy junk food diets of many Americans are a big part of the problem. Processed foods loaded with fat and added sugar provide little nutritional value but add on the pounds.

A poor diet combined with an inactive lifestyle is a sure path to obesity and all the health issues that come with it. Eating healthy foods and getting a reasonable amount of exercise are simple and effective methods for managing weight, yet many Americans choose to continue eating
badly while leading sedentary lives.

In the end, it is a choice. As the saying goes: "Nothing tastes as good as skinny feels."

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