

Cancer Breakthrough: Grape Seed Extract Kills Colorectal Cancer Cells

By Sherry Baker, Natural News

Cancer researchers are working to find chemotherapies that destroy cancer cells but are harmless to normal cells. It turns out, a natural substance already exists that does just that. *University of Colorado Cancer Center* scientists have just published a study in the journal *Cancer Letters* that shows grape seed extract (GSE) is a powerful weapon against colorectal cancer. It halts the growth and survival of colorectal cancer cells and kills them in large numbers, too, while leaving healthy cells completely alone.

And the news about GSE gets better: the more advanced the colorectal cancer cells, the more GSE shuts down the malignant cells' growth and survival. The scientists think that GSE targets colorectal cancer by causing oxidative stress that leads to the programmed cell death known as *apoptosis*.

"We've known for quite a while that the bioactive compounds in grape seed extract selectively target many types of cancer cells. This study shows that many of the same mutations that allow colorectal cancer cells to metastasize and survive traditional therapies make them especially sensitive to treatment with GSE," Molly Derry, doctoral candidate in the lab of Rajesh Agarwal, PhD, investigator at the CU Cancer Center and professor at the *Skaggs School of Pharmacy and Pharmaceutical Sciences*, said in a press statement.

Derry pointed out that the GSE findings are especially important due to the increasing rates of colorectal cancer. Unfortunately, 60 percent of patients diagnosed with this form of cancer have already reached the advanced stage of the disease.

As the research team performed their experiments on colorectal cancer cell lines representing all stages of the disease, they came up with another startling finding. ***Although it usually takes much more chemotherapy to kill a stage IV cancer cell than a stage II cancer cell, the exact opposite was true when it came to grape seed extract.***

"It required less than half the concentration of GSE to suppress cell growth and kill 50 percent of stage IV cells than it did to achieve similar results in the stage II cells," Derry revealed in a media statement.

"A colorectal cancer cell can have upwards of 11,000 genetic mutations -- differences from the DNA in healthy cells. Traditional chemotherapies may only target a specific mutation and as cancer progresses more mutations occur. These changes can result in cancer that is resistance to chemotherapy. In contrast, the many bioactive compounds of GSE are able to target multiple mutations. The more

mutations a cancer presents, the more effective GSE is in targeting them," Derry added.

The Agarwal Lab studies the effectiveness and action of dietary compounds against cancer and is encouraging further exploration of their findings in clinical settings with patients. "Finding a way to selectively target advanced colorectal cancer cells could have major clinical importance," Derry stated.

As *NaturalNews* previously reported, researchers from the *University of Kentucky* have also conducted groundbreaking research into the anti-cancer properties of grape seed extract. They found the natural substance triggered the death of 76 percent of leukemia cells exposed to the extract in a laboratory experiment. Their study, published *Clinical Cancer Research*, a journal of the *American Association for Cancer Research*, showed that grape seed extract triggered the destruction of leukemia cells by apparently "turning on" a protein known as JNK that regulates the cancer cell killing pathway.