

A BETTER WAY TO TREAT CANCER

Here at C60 Health, we are thrilled whenever we come across medical studies that provide further evidence of C60's efficacy in treating and potentially curing various diseases.

The following is an Abstract from PubMed for National Library of Medicine, dated October 20, 2019. In order to make the Abstract easier to understand, we have taken the time to break it down and rewrite it using clear and simplified language to ensure accurate comprehension for you, the reader. A link to the Abstract online is at the bottom.

Abstract

We examined a small drug combination aimed at enhancing cancer treatment.

To achieve this, we employed a small quantity of a unique combination of the cancer therapy drug Doxorubicin (Dox) and C60 fullerene (C60). We experimented with two distinct mixing ratios, 1:1 and 2:1, harnessing C60's dual role as a drug carrier and a light-sensitive agent.

When we examined leukemia cells in a lab dish and treated them with the mixture of Dox and C60, we noted that Dox went inside the cell nucleus, and C60 stayed outside the nucleus.

This allowed us to use a "**double-hit**" strategy against cancer cells. We used Doxorubicin (Dox) to slow down their growth, and we used C60's light-activated pro-oxidant activity to harm them further.

When we treated cancer cells with a mixture of C60 and Dox at a 2:1 ratio and shone light on them, C60 and Dox worked together to effectively kill cancer cells, using very small amounts of the substances.

The strong ability to trigger oxidative stress and cell death reduced the IC50 value significantly when compared to Doxorubicin alone, the mix without light, and C60's light-activated effect. In fact, it reduced the IC50 value by a large factor: 16, 9, and 7 times 1,000. *(The lower the IC50 value, the more potent or effective the substance is in producing the desired effect.)*

We found that combining C60 to deliver Doxorubicin (Dox) and using C60 to react to light creates a strong combined therapy effect. Our data show that using C60-Dox in both chemo and light treatments offers a promising and effective approach to treating cancer.

To read the PubMed Abstract online, visit the following link:

Synergy of Chemo and Photodynamic Therapies with C60 Fullerene-Doxorubicin Nanocomplex
<https://pubmed.ncbi.nlm.nih.gov/31671590>