عنوان مقاله:

The effects of vitamin C administration on conventional treatment in patients with breast cancer:A review

محل انتشار:

دهمین کنگره بین المللی سرطان پستان (سال: 1393)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Ascorbic acid (AA) readily neutralized reactive oxidant species due to its electron donor-acceptor properties. This oxidoreductase activity makes vitamin C related to various cancers including breast cancer. Method: This paper was provided as a review by selecting related items whichpublished between the years 2000-2014. Documents were collected from databases, PubMed and Google S cholar. Results: Results of laboratory and human studies indicated AA had a dual effect on breast cancer cells, which probably depended on its blood concentrations. It had an antioxidant action in physiologic blood levels. While, in higher concentrations acted as a pro-oxidant agent only in cancer cells. Dose and method of administration are factors affecting on plasma levels of vitamin. It seems cytotoxic concentrations of vitamin only obtained by intravenous (i.v) administration, not oral intake. Generation of hydrogen peroxide (H2O2) was accounted as important mechanisms in vitamin's prooxidantactivity. Impaired antioxidant systems in disease cells caused to the generated H2O2 by AA auto-oxidation selectively kill cancer cells. Discussion: i.v use of ascorbic acid is found to create cytotoxic blood levels of vitamin. Such finding can suggest a new approach to synergism effect of aseemingly antioxidant vitamin with conventional treatments such as chemotherapy.

کلمات کلیدی:

Breast cancer, Ascorbic acid, Conventional treatments