

عنوان مقاله:

Arsenic Trioxide; a Novel Therapeutic Agent for Prostate and Bladder Cancers

محل انتشار:

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تعداد صفحات اصل مقاله: 7

نویسندگان:

Akram Mirzaei - Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran

Leila Zareian Baghdadabad - Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran

Mohammad Hatf Khorrami - Department of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

Seyed Mohammad Kazem Aghamir - Urology Research Center, Tehran University of Medical Sciences, Tehran, Iran

خلاصه مقاله:

The effectiveness of arsenic trioxide (ATO) in treating blood diseases is one of the most striking developments in modern medicine. One of the most important benefits of ATO is the failure of bone marrow suppression. ATO has been proposed as a novel and effective medicine for cancer prevention and treatment with various functions including, induction of apoptosis through re-activating the Wnt inhibitor, growth inhibition via activation of phosphatidylinositol 3-kinase (PI3K)/AKT pathway, autophagy stimulation, induction of cell differentiation and angiogenesis via vascular endothelial growth factor A (VEGFA)-VEGFR2-PI3K/ extracellular signal-regulated kinase (ERK) signaling path in cancer cells and ATO may be involved in the acetylation of histones and interfering with gene transcription. ATO can increase the synergistic effect in treatment and increased antitumor effects on prostate cancer cells via inhibiting Akt/mTOR signaling pathways, and so, ATO in combination with inhibiting glutathione synthesis can treat bladder cancer epithelial cells effectively.

کلمات کلیدی:

Arsenic trioxide, cancer cells, Angiogenesis, Apoptosis

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