

The Pharmacodynamic mechanisms of Medical Ozone involvement in Methotrexate benefit/risk ratio in patients with rheumatoid arthritis.

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Abstract

Although Methotrexate (MTX) remains the first line drug for the treatment of rheumatoid arthritis (RA) the hepatotoxicity is its major adverse effect which may lead to withdrawal of the drug. Recently, the increase of MTX clinical efficacy when the drug is combined with medical ozone as complementary therapy has been demonstrated. A clinical trial (n=100 patients) has been achieved in order to investigate the hepatoprotective effects of MTX+Medical ozone combination on RA patients .

MTX+Medical ozone reduced transaminase and γ - glutamyl transferase activities in comparison with patients who received MTX only. Albumin and alkaline phosphatase remained in reference intervals. Increase of count platelets was noticed when the patients were treated with MTX+Medical ozone. Redox status of the patients was improved in MTX+Medical ozone group.

Pharmacodynamic meaning of the medical ozone on γ - glutamyl transferase activity, reduced glutathione and other ozone reference substances is discussed with regard to the benefit/risk ratio. **Increase of clinical efficacy and decrease of hepatotoxicity and other comorbidity risks in RA patients treated with MTX+Medical ozone is demonstrated .**