THE ROLE OF OXYGEN-OZONE THERAPY IN CHRONIC HEPATITIS

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RESUMO

Introduction. Hepatitis C virus (HCV) is a major public health problem affecting more than 50million people worldwide. This disease is slowly progressing, detected mainly accidentally,devitalizing and difficult to treat. Oxygen-ozone (O2-O3) therapy has shown promising potentialin managing chronic hepatitis. The mechanism behind these benefits involves ozone's ability tomodulate oxidative stress and enhance mitochondrial function. Moreover, ozone therapy is notedfor its immunomodulatory effects, reducing pro-inflammatory cytokines and thereby potentiallymitigating the chronic inflammatory state seen in hepatitis. Ozone is a powerful oxidizing agent.It disrupts viral envelope proteins, lipoproteins, lipids, and glycoproteins. Molecular architectureis disrupted and widespread breakage of the envelope ensues.The objective of the present study was to evaluate the effectiveness and safety of ozone therapyin chronic hepatitis C and to evaluate a proposed ozone therapy protocol in HCV treatment.Material and methods. The study included 80 patients with HCV, 55 males and 25 females.Their age ranged between 44 and 69 years. Investigations including CBC, liver function tests,P.C.R. quantitative for HCV, prothrombin and abdominal ultrasonography were done before and12 weeks, 24 weeks after starting treatment with ozone. The patients received combinedtreatment of major autohemotherapy and rectal insufflation. Investigations were repeated after 8and 24 weeks of treatment. General health and daily activity were observed.Results. It was found that following eight weeks of ozone therapy, the viral load decreased in88,5% of cases (p<0.001) that reached PCR level in 20% of cases. Following 24 weeks of ozonetherapy, there was further decrease of the viral load that reached 93% of cases (p<0.001) with aPCR level in 35,7% of cases. After eight weeks of ozone therapy, the abnormal enzyme levelswere back to normal in 45% of cases (p<0.013) for the GOT enzyme, and were back to normal in60 % of cases (p<0.001) for the GPT enzyme (normal levels are ≤ 40 U/L for the GOT enzyme,and ≤40 U/L for the GPT enzyme). After eight weeks of ozone therapy, the abnormal bilirubinlevels (normal value ≤1 mg%) were back to normal in 55% of cases (p<0.001). Following alsothe same period of therapy, the abnormal albumin parameters (normal value ≥3.5 mg %) wereback to normal in 38% of cases (p<0.03). The prothrombin concentration improved towards thenormal level. Conclusions. Oxygen-ozone therapy shows significant promise treatment for chronic hepatitis,offering potential benefits such as reduced viral load, improved liver function and enhancedpatient quality of life. In this study it was found that following ozone therapy, there was asignificant reduction of viral load. This decrease was evident after 8 weeks and further declinefollowing another 24 weeks of ozone therapy. Also, was a significant change of abnormalenzyme levels towards normal values.

PALAVRAS-CHAVE: Oxygen-ozone therapy, hepatitis, treatment, major autohemotherapy

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