



## The Effective role of probiotics against Hepatitis C infection and pathogenic bacteria in chronic HCV patients.

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### Abstract:

**Background:** Hepatitis C virus (HCV) is a major leading cause of pathogenesis of liver disease which was treated with IFN-based therapy and recently with Sovaldi®. There is a challenge to explore new drugs which could enhance the efficacy and lower their associated toxicity. Probiotics are the most common natural therapeutic that can ameliorate liver dysfunction.

**Aim:** study the antiviral and antibacterial responses of the probiotics in patients with chronic (HCV).

**Methodology:** patients were treated with IFN/ribavirin, or both IFN and probiotics capsule that was containing *L. acidophilus* and *Bifidobacterium* spp. and administered as one capsule per day for a month. Blood and urine samples were collected before and after treatment strategies and were processed for quantitative determination of HCV PCR assay, identification of bacteria by VITEK2 system and 16S r RNA gene sequencing, estimation of probiotics antibacterial activity, as well as counts of leukocytes and CD3+ T cells and CD56+ natural killer cells.

**Results:** Treatment of patients with *L. acidophilus* and *Bifidobacteria* spp. enhanced the responses of the patients to IFN and ribavirin treatment, as shown by the viral titer of HCV PCR assay, and also the antibacterial activity against the most common bacterial infections like *E. coli*, *Pseudomonas aeruginosa*. Additionally, it increased the numbers of CD3+ and CD56+, and reduced the level of DGAT1, SGPT, SGOT enzymes and the lipid profile.

**Conclusions:** Treatment with probiotics before HCV therapy can act as a supportive supplement with antiviral, positive immune response and antibacterial activities.

### Biography:

Clinical lab scientist, microbiologist and chemist as my graduation field in Science faculty Alexandria and Tanta



Uni. Egypt .El Kasr El Aeny Hospital. I have good scientific background in biology, clinical microbiology, biochemistry, molecular microbiology, cell culture, bioinformatics, virology and immunology. as i gained these experience from work and scientific courses .focusing on HCVs Hepatitis c virus and Immunology i earned Msc degree, Tanta Uni. Scientific and Marketing skills as work in marketing field Pharmaceutical companies as one of multinational companies Bayer and other several clinical labs in Egypt

Several courses :- marketing , selling skills , negotiation, communication skills in Swiss institute and languages English ,Deutsch , Computer sciences. I participated in 5 international conferences as speaker and poster inside and outside Egypt and others Volunteer work was one of activities that i care to keep it for years

### Publication of speakers:

1. Allam, Nanis & Salem, Mohamed & Elbatae, Hassan & m.nabieh, Maii. (2019). *Lactobacillus acidophilus* and *Bifidobacteria* spp having antibacterial and antiviral effects on chronic HCV infection. *African Journal of Microbiology Research*. 13. 77-90. 10.5897/AJMR2018.9028.
2. Allam, Nanis & Salem, Mohamed & Elbatae, Hassan & m.nabieh, Maii. (2017). *L.ACIDOPHILLUS AND BIFIDOBACTERIUM SPP CONTRIBUTE IN THE TREATMENT OF CHRONIC HEPATITIS C PATIENTS*.

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