

LIV-LONG™ (Liver Boost)

RESULTS OF DOUBLE BLIND PLACEBO STUDY

COMPARATIVE STUDY BETWEEN A COMPLEX OF FLAVONOIDS AND POLYPHENOLS CREATED FROM EXTRACTS OF ARTICHOKE AND SARSAPRILLA AND A PLACEBO IN ALCOHOL RELATED LIVER DISEASE

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In a previous study, completed over two years ago in this same hospital, an extract of artichoke (*Cynara floridanum*) and sarsaparilla (*Smilax aristolochiaefolia*) was evaluated in addressing the symptoms related to alcoholic liver disease. This study was accomplished over a fifteen day period with exceptional results. Because of these results noted over a very short period of time, the hospital researchers were anxious to set up the same study over a longer period (30 days). Please refer to the July 3, 1996, study for descriptions of symptoms and study parameters. Results of this study are as follows:

Ascites

A 72.38% reduction of the accumulation of serous abdominal fluid was noted in the treated group. The placebo saw a 6.35% increase in abdominal fluid.

Encephalopathy

A 66.08% reduction of encephalopathy was obtained in the treated group. The placebo group worsened by 12.24%.

Hepatomegaly

The treated group experienced a 93.33% reduction in enlarged livers. In the placebo group their livers continued to enlarge by another 7.14%.

Splenomegaly

An 88.40% reduction in spleen enlargement was noted with the treated group. The placebo group worsened by 11.54%.

Weakness

The treated group noted a 73.64% increase in strength. There was a decrease in muscle strength by 7.41% in the placebo group.

Peripheral Edema

Edema in the extremities of the treated patients decreased by 48.21% in the treated group. There was no change in the placebo group.

Hemorrhages

The treated group noted a 100.00% decrease in capillary hemorrhaging in the skin, gums, and nasal membranes. The placebo group saw an increase of 28.57% in hemorrhaging.

Anorexia

Loss of appetite decreased in the treated group by 76.98%. The placebo group noted a decrease of 3.70%.

Abdominal Wall Veins

The treated group experienced a 60.62% decrease in tortuous veins in the abdomen related to ascites. The placebo group saw a 3.33% decrease.

Palmar Erythema

The treated group noted a 26.67% decrease in red and swollen palms. In the placebo group there was no change.

Telangiectasia

A 60.00% reduction in vascular lesions was noted in the treated group. A 3.33% reduction was seen in the placebo group.

Total Bilirubin

The treated group noted a reduction of total bilirubin by 38.95%. The placebo group increased by 5.68%.

Alkaline Phosphatase

The treated group obtained 25.91% reduction in alkaline phosphatase. There was an 11.69% increase in the placebo group.

Serum Glutamic Oxalctic Transaminase (SGOT)

The treated group noted a decrease of 23.83% in SGOT levels. The placebo group experienced a worsening of 11.71%.

Prothrombin Time

A 42.00% reduction in clotting time was noted with the treated group. An increase in clotting time was noted in the placebo group of 6.60%.

Serum Albumin

An increase of 37.27% in serum albumin was noted in the treated group. There was a decrease in the placebo group of 1.95%.

Gamma Glutamyl Transpeptidase (GGT)

The treated group noted a reduction of 23.79% in GGT. The placebo group experienced an increase of 9.92%.

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ARTICHOKE EXTRACT AND CHOLESTEROL

Artichoke extract exerts a dual effect on cholesterol metabolism. First, it decreases the manufacture of cholesterol in the liver.¹ Approximately 80% to 90% of cholesterol in the blood is manufactured by the liver and is not derived from the diet. The other way in which artichoke extract affects cholesterol levels is by increasing the conversion of cholesterol to bile acids.^{1,2} One of the functions of cholesterol is to be the building block of bile acids. Many people, one of the reasons that their cholesterol levels are high, is because of impaired conversion of cholesterol to bile acids. In this scenario, low bile acid levels result in sending a powerful signal to the liver to provide more cholesterol.

In the study evaluating artichoke extract in 553 patients with various digestive disorders, it improved digestion and significantly lowered blood cholesterol levels.³ In spite of the relatively short duration of therapy (six weeks on average), the study showed an 11.5% reduction in the average serum cholesterol from an initial average of 264 mg/dl to 233 mg/dl. Serum triglycerides were also reduced from 214.97 mg/dl to 188.07 mg/dl, corresponding to a decrease of 12.5%.

REFERENCES

1. Gebhardt R: "Artichoke extract. *In-vitro* proof of cholesterol biosynthesis inhibition." *Medwelt* 46:348-350, 1995.
2. Kraft K: "Artichoke leaf extract. Recent findings reflecting effects on lipid metabolism, liver and gastrointestinal tracts." *Phytomedicine* 4:369-78, 1997.
3. Fintelmann V: "Antidyspeptic and lipid-lowering effects of artichoke leaf extract-Results of clinical studies, into the efficacy and tolerance of Hepar-SL/E forte involving 553 patients." *J Gen Med* 2:3-19, 1996