



# Hepatitis

## How Korean Red Ginseng could be effective for chronic hepatitis B



### Background



### Theory

#### The effect of Korean red ginseng (KRG) on chronic hepatitis B (CHB):

CHB management is commonly targeted at reducing viral replication. However, the currently available antiviral therapies are associated with some problems, including resistance and numerous adverse effects. Ginseng has been reported to be effective for treating viral infections such as influenza and human immunodeficiency virus. This study investigated the effects of KRG together with antiviral agents in CHB.



### Method

#### A prospective, single-blinded, randomized controlled trial, single-center study:

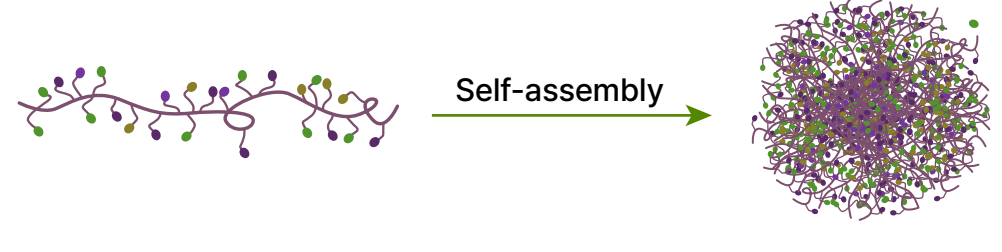
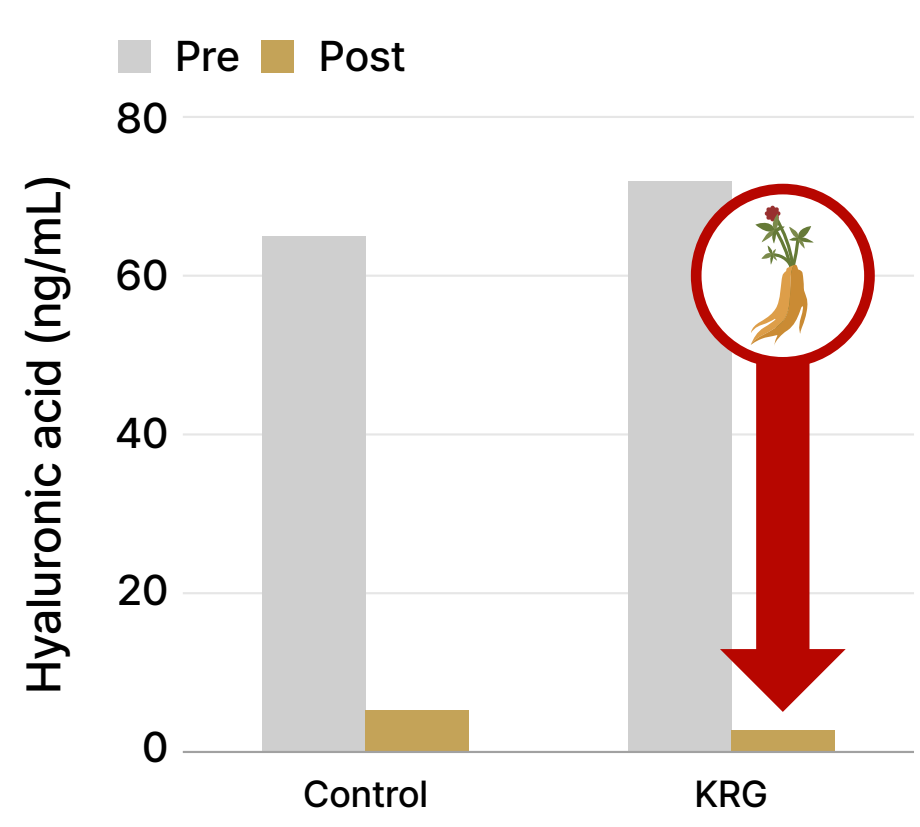
Thirty-eight patients were enrolled. The control group (n = 19) was administered antiviral agents alone. The KRG group (n = 19) was administered antiviral agents along with KRG powder capsules (each dose: 1 g (2 capsules), a one-day dose: 3 g). Differences in several non-invasive fibrosis serologic markers and in the hepatitis B virus DNA levels were compared between the groups.



### Outcome

With 38 CHB patients {control group (n=19), KRG group (n=19)}

#### Non-invasive fibrosis serologic marker (1) - Hyaluronic acid

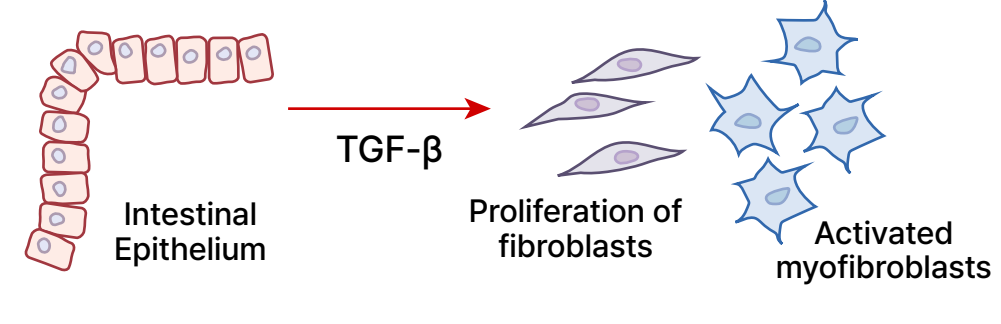
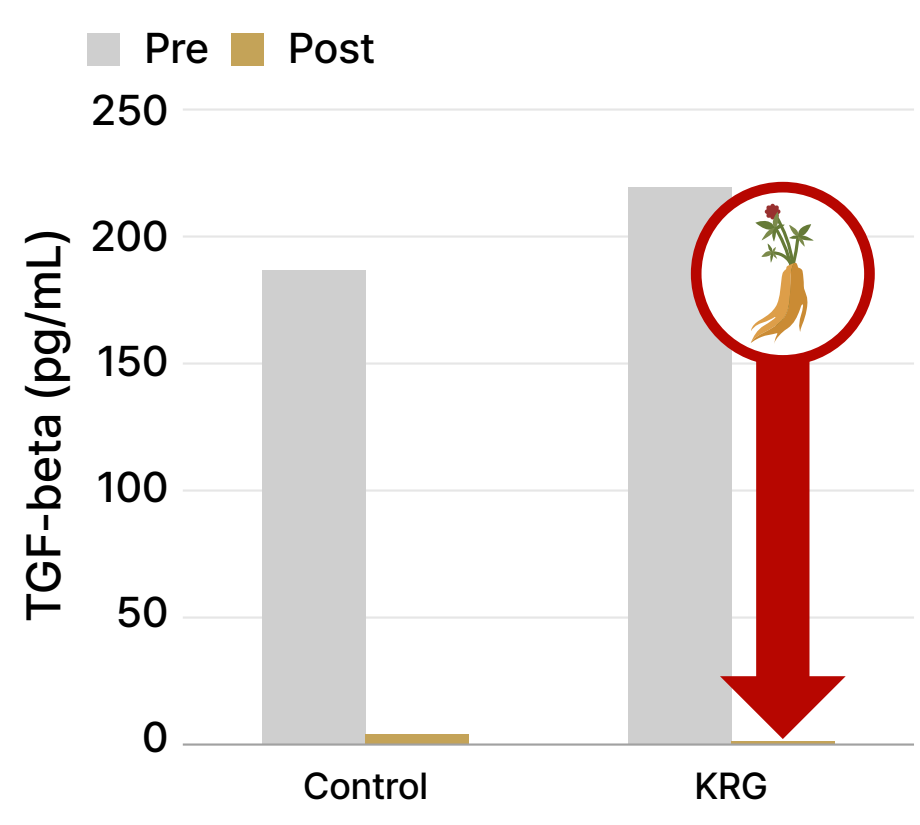


After treatment, a larger decrease of hyaluronic acid levels was observed in the KRG group, which was statistically significant between the 2 groups ( $p < 0.05$ ).

#### Hyaluronic acid

An index which could be used as a biomarker for high score fibrosis and cirrhosis in numerous liver diseases. Its concentration changes in liver diseases could be affected by the severity of liver cirrhosis

#### Non-invasive fibrosis serologic marker (2) - TGF-β



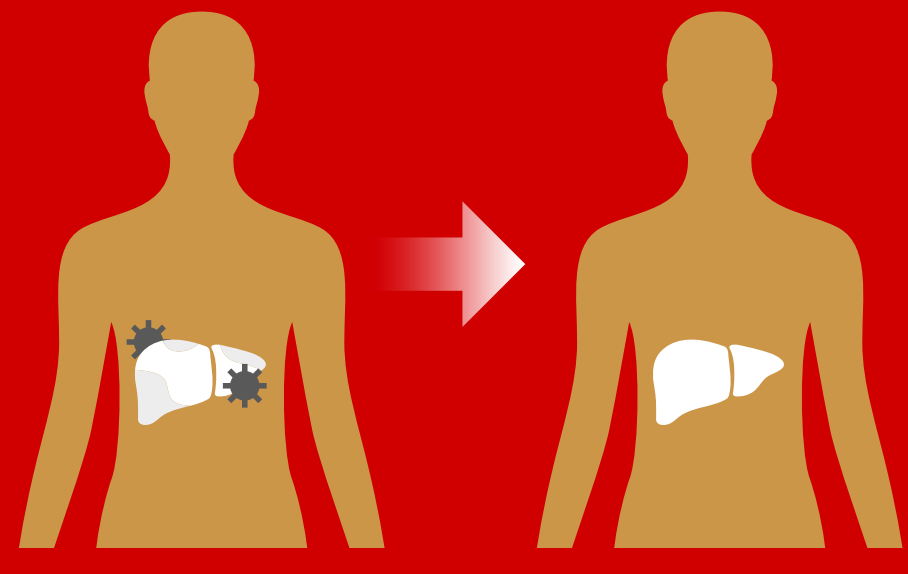
A larger decrease was observed in the KRG group after treatment, and there was a statistically significant difference between the 2 groups ( $p < 0.05$ ).

#### TGF-β

A pro-fibrogenic cytokine, playing a role in the activation of hepatic satellite cells via intracellular signaling cascades and activating fibroblasts with promoting a switch in gene expression to initiate remodeling of the matrix.

During the study period, there were no serious adverse events in the KRG or control groups. The hematological and biochemical test results were within the normal ranges for both groups, both at baseline and after 52 weeks.

### Impact



#### Effect of Korean Red Ginseng on chronic hepatitis B

This study suggests that Korean red ginseng as a combined therapy with an antiviral agent could downregulate the expression of the well-correlated marker with fibrosis, and as a complementary therapy with antiviral agent would be helpful for patients with chronic hepatitis B.

### Conclusion

#### The use of Korean Red Ginseng for suppressing serological markers of fibrosis

The decrease of non-invasive fibrosis serologic markers after Korean red ginseng administration in this study indicates **the possibility of Korean red ginseng as a complementary therapy for chronic hepatitis B.**

Source: Choi SH et al. "Effects of complementary combination therapy of Korean red ginseng and antiviral agents in chronic hepatitis B" *J Alt Compl Med.* 2016;22(12):964-969.