



Liver disease

How Korean Red Ginseng could act as liver cancer preventative



Background



Theory

The effect of Korean red ginseng (KRG) on hepatocellular carcinoma (HCC):

HCC is the fifth most common malignancy in the world and complicates liver cirrhosis related to hepatitis C virus in many cases. Several studies have found that the antitumor activity of a novel ginseng saponin metabolite (IH-901) is attributable to the induction of apoptosis. The aim of the current study was to evaluate the therapeutic effects of KRG extract in Egyptian patients with chronic liver diseases.



Method

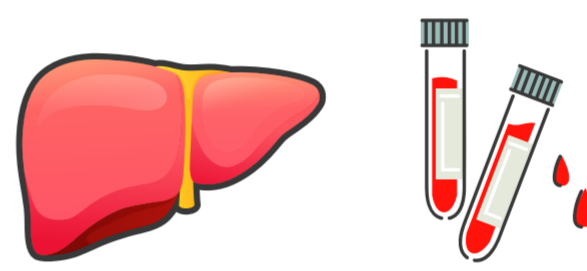
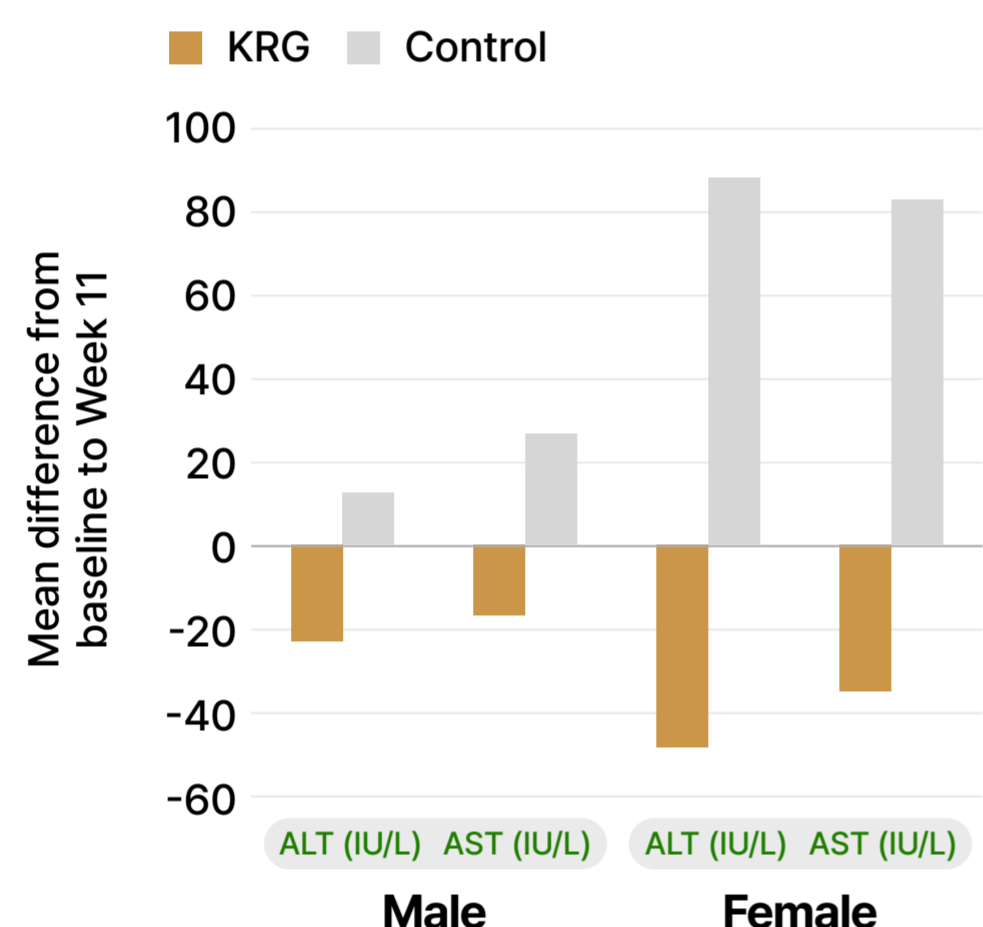
30 male and female patients with HCC and another 30 with liver cirrhosis were included. Each category was divided into two groups; the control group, receiving medical therapy only, and the KRG group, receiving the medical therapy supplemented with KGE capsules. The KRG group with HCC received 3 KGE capsules/day (900 mg) while the KRG group with HCV received 2 KGE capsules/day (600 mg) for 11 weeks along with their medical therapy. All patients were subjected to clinical examination and laboratory investigations.



Outcome

With 30 patients with HCC and 30 patients with liver cirrhosis (KRG extract 900 mg/day for HCC patients, KRG extract 600 mg/day for HCV patients)

The Serum Biochemistry



A significant decrease of ALT was found in KRG group, and AST levels decreased continuously in the KRG group and reached their minimum by week 11.

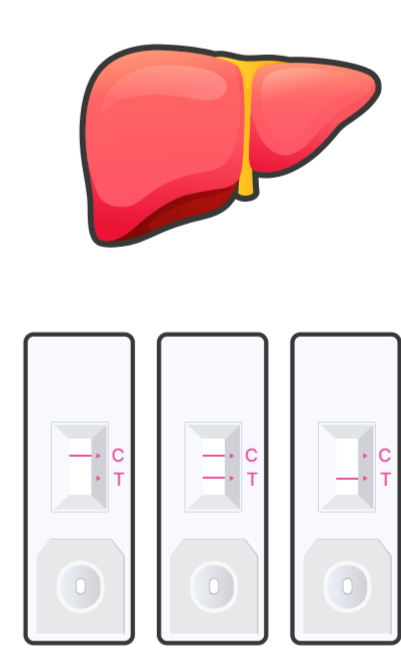
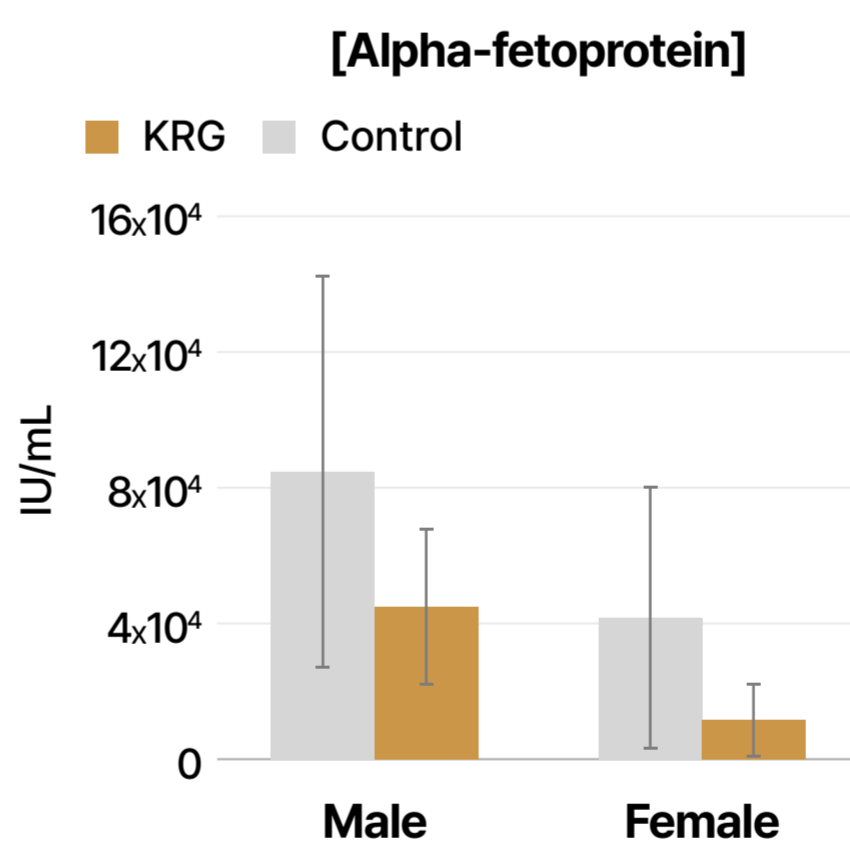
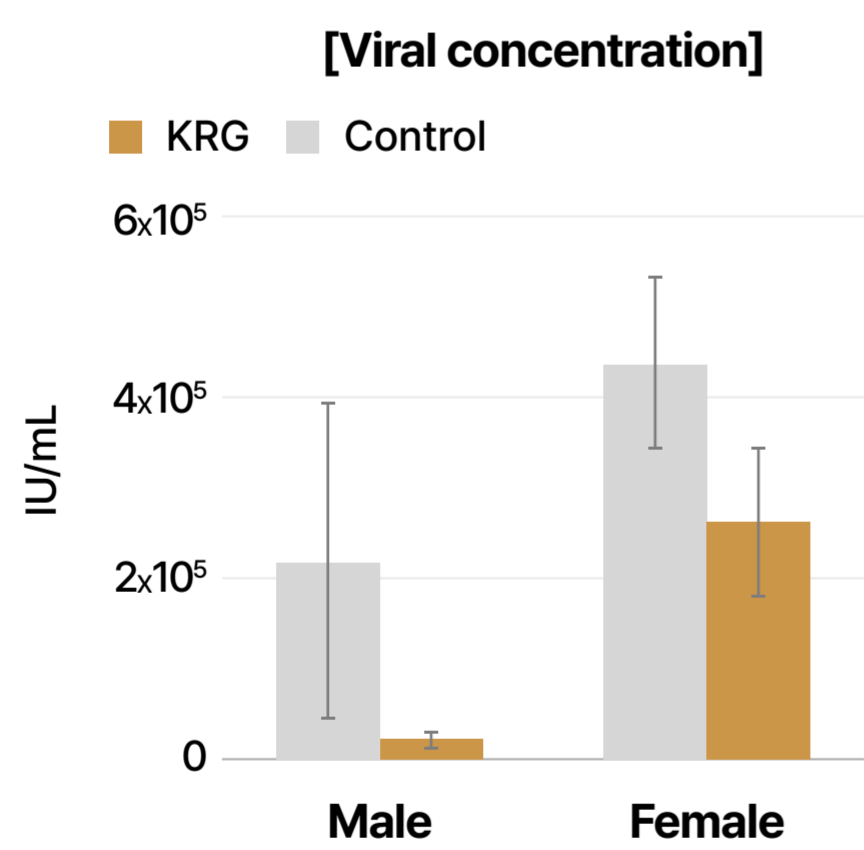
Liver function tests: Aspartate transaminase (AST) and alanine transaminase (ALT), serum bilirubin (total and direct), serum total proteins, serum albumin, prothrombin concentration

*AST: An increase in AST levels may indicate liver damage, disease or muscle damage.

*ALT: When the liver is damaged, ALT is released into the bloodstream and levels increase.

- The KRG group demonstrated a pronounced improvement in the serum TP, which reached the reference range level in both males and females patients with HCC or cirrhosis. KRG group resulted in a significant improvement in serum albumin level that reached the normal reference range. TB improvement was also achieved when the KRG treatment period was prolonged to 11 weeks.

HCV & AFP

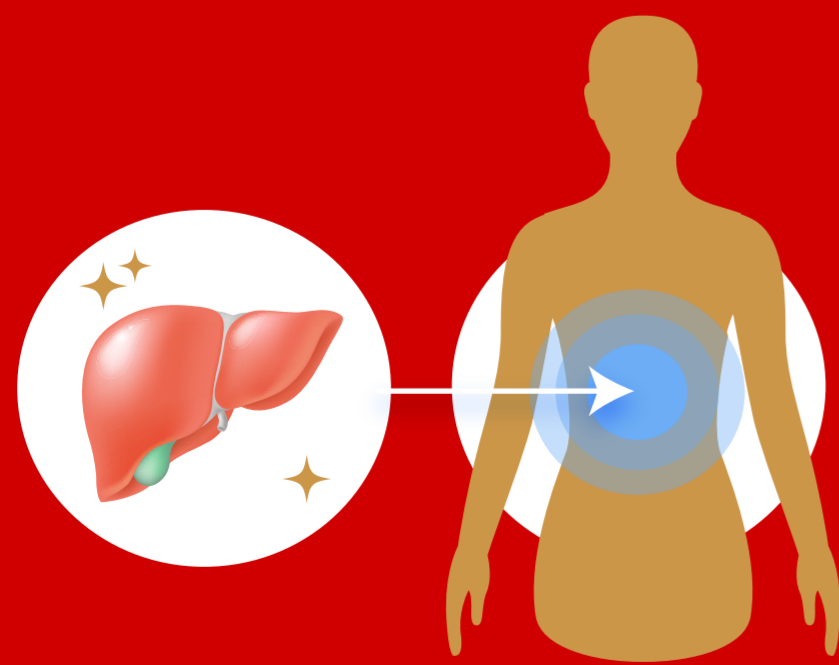


KRG administration for both male and female patients with HCV resulted in a significant decrease in the viral concentration compared with the control. Also, administration of KRG for 11 weeks resulted in a significant decrease in AFP.

*HCV (hepatitis C virus): HCV infection is a major cause of chronic hepatitis.

*AFP (alpha-fetoprotein): A marker of tumor

Impact



Effect of Korean Red Ginseng on liver diseases

This study results showed that the medical therapy alone failed to normalize the liver enzymes or decrease the virus concentration. Korean red ginseng administration induced a significant improvement in liver function tests, decreased the tumor marker levels, and decreased the viral titers in HCV patients.

Conclusion

The preventative effect of Korean Red Ginseng on liver cancer

The results of the current study indicate that Korean red ginseng could act as **liver cancer preventative as well as an antiviral agent against HCV.**