# Note On (G-Test) And Alpha-Feto Protein for Hepatitis B Virus-Related Liver Cancer

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#### **Abstract**

The diagnostic efficiency of serum oligosaccharide chain (G-test) and alpha-fetoprotein (AFP) for hepatitis B-related hepatoma (HCC). Serum samples are taken from 100 patients divided into five groups of 20 each who were admitted to the Second Affiliated Hospital in October to January were collected, and the levels of G-test and AFP were determined. The sensitivity and specificity of the 2 indicators were compared, and the receiver operating characteristic function of the themes was drawn to gauge the diagnostic values of G-test and AFP for HCC. The diagnostic ability of G-test (area under the curve was better than that of AFP When G-test and AFP were combined for detection, the AUC was larger than that of either indicator. The G-test was superior to AFP within the medical diagnosis of early HCC and cirrhosis. a mixture of the 2 indicators significantly improved the diagnostic rate for early HCC, indicating that G-test and AFP complemented one another.

## Introduction

Hepatocellular carcinoma (HCC), a primary liver malignancy, is one among the foremost common cancers and therefore the third leading explanation for cancer-related deaths. it's mainly caused by hepatitis B virus (HBV) or hepatitis C virus (HCV) infection [1-2]. In China, the prevalence of chronic hepatitis, especially chronic hepatitis B, is high [8]. quite 80% of HCC patients experience liver fibrosis, liver cirrhosis, and cancer of the liver. a rise within the incidence of chronic HBV infections has contributed to 70% of the cirrhosis cases and has led to a rise within the incidence of cancer of the liver. HCC features a high incidence rate, high deathrate, poor prognosis, early diagnostic and treatment difficulties, and a coffee 5year survival rate [3-4]. Early detection of HCC plays a crucial role in its diagnosis and treatment. Tumor markers are potential screening tools for the first diagnosis of malignant tumors; therefore, the choice of appropriate markers is clinically significant for the first diagnosis of HCC. Alpha-fetoprotein (AFP) is that the most vital tumor marker for the clinical diagnosis of HCC and is usually utilized in conjunction with liver ultrasound to detect HCC in patients with liver cirrhosis.

Serum AFP level is related to the tumor diameter, differentiation, and biological characteristics [5]. AFP isn't specific to cancer of the liver, and lots of other liver diseases can also cause elevated AFP levels. A meta-analysis demonstrated that the sensitivity and specificity of AFP varied greatly, Thus, it's easy to realize false negative or false positive results, thereby greatly affecting the accuracy of HCC diagnosis; about 20% of patients with advanced cancer of the liver have AFP levels within the reference rangeuntildeath[6].

#### Conclusion

G-test was Considered to be better than AFP for screening HCC in patients with chronic hepatitis B and cirrhosis. the mixture of the 2 further improved the diagnostic rate of hepatitis B-related cancer of the liver. G-test improves the screening rate of early HCC in patients with cirrhosis. Therefore, these markers are of great clinical significance and may improve the sensitivity of HCC detection and reduce missed diagnosis rates.

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