

# The Symposium that I attended "Hepatocellular carcinoma prevention"

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عقد مؤتمر أمراض الكبد في ديسمبر ٩٢ بجدة. جاء فيه أن سرطان خلايا الكبد أكثر شيوعاً بين المرضى من حاملي فيروس -ب- لالتهاب الكبد. كما أنه أكثر الأورام خبثاً ومعدل الوفيات منه عالٍ. والقيت ورقة تؤكد دور الالتهاب الكبدي ب و ج في نشوء سرطان الكبد في المملكة العربية السعودية.

وهما أن سرطان الكبد ليست له أعراض في المراحل الأولى لذا فإن تقدم المريض للعلاج عادة يكون متأخراً حيث يكون الورم في هذه الحالة غير قابل للجراحة .

الوقاية الأولية من هذا الورم هي الهدف. وأهم طرق الوقاية التطعيم ضد التهاب الكبد الوبائي ب ومحتمل في المستقبل القريب التوسع في التطعيم ضد الالتهاب الوبائي ج بالإضافة إلى طرق أخرى.

الاكتشاف والتشخيص المبكر يمكن عن طريق اختبارين بالبالزما وهما ألفا فيتو بروتين والآنزيم المشابه جى تي تي. الارتفاع المفاجيء لآلفا فيتو بروتين لدى حامل فيروس التهاب الكبدى - ب - حساس ومنذر. في هذه المرحلة التشخيص المبكر يمكن ان يتم عن طريق الأشعة فوق الصوتية والأشعة المقطعية بالكمبيوتر.

بما أن ألفا فيتو بروتين حساس وغير غال الثمن فإنه يمكن استخدامه كأختبار مسحي لسرطان الكبد وذلك لمسح حاملي فيروس التهاب الكبد - ب - وبذلك يمكن تشخيص هذا المرضى مبكراً.

لقد تم اقتراح إجراء مسح حاملي فيروس التهاب الكبد - ب - من خلال اختبار نسبة ألفا فيتو بروتين بالبالزما وذلك في المستشفيات ومراكز الرعاية الصحية الأولية بالمملكة العربية السعودية.

*A symposium on liver disease was held in Jeddah on Dec. 1992. Hepatocellular carcinoma (HCC) which is prevalent in hepatitis B carriers, is one of the malignant tumours with the highest mortality.*

*A study conducted in Jeddah strongly supported the role of hepatitis B and C in the development of liver carcinoma in Saudi Arabia.*

*Since HCC is asymptomatic in its early stages, clinical presentation is usually late, when the tumour is inoperable. However, the successful resection rate of early tumours is high. Primary prevention, therefore, is the goal. This includes the screening for vaccination against hepatitis B and should in the near future be included in health education.*

*Early detection and diagnosis is possible through serology markers – serum–alpha–fetoprotein (AFP) and GTT–isoenzymes.*

*AFP is sensitive and inexpensive, and is suitable for HCC screening of hepatitis B carriers in whom its sudden rise is significant. Early diagnosis of HCC at this stage, can be confirmed by sonography and CT scan.*

*It is recommended that serum AFP levels be used for screening hepatitis B carriers in hospitals and PHC centers, in Saudi Arabia.*

**Key Words:** Hepatitis B and C, Alfa-fetoprotein, GTT.

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## INTRODUCTION

A symposium on liver disease was held in Jeddah on 8-9 J. Thani 1413, 2nd and 3rd of December 1992 at King Abdulaziz Hospital. I attended that symposium and gathered an extensive amount of valuable facts in medicine that I would like to share with all of my physician colleagues involved in hospitals and primary health care centers in Saudi Arabia.

The first session of that symposium was about hepatocellular carcinoma. Primary hepatocellular carcinoma (HCC) remains a major problem in developing countries, and is more prevalent in hepatitis B carriers. It is one of the tumors with the greatest malignancy and the highest mortality.

The first session of the symposium, was about a study conducted in Jeddah about HCC and the second session was on its prevention. The study strongly reinforced the role of hepatitis B and C in the development of liver carcinoma in Saudi Arabia where males at the peak age of 37 years were more susceptible. Patients usually present at a late stage with abdominal pain, abdominal distension, jaundice, portal vein thrombosis, and haematuria. There is little left to offer such patients since by the time the clinical manifestations become obvious the tumour would have already metastasized and become inoperable. However, if the tumor is detected early when HCC is still asymptomatic it is potentially curable by surgery. At this stage, the successful resection rate of small tumours is high. Diagnostic investigation of HCC includes sonography and computerised tomography scans (CT Scan).

### **The Causative Factors of HCC are:**

- 1 Chronic hepatitis – B infection
- 2 Liver cirrhosis of any type
- 3 Hepatitis – C infection
- 4 Relation to alpha-toxin and to contraceptive pills and to high doses of diethyl estradiol and other steroids.

Primary prevention should be the goal. This involves hepatitis – B (HBV) vaccination and possibly in the near future, a vaccination against hepatitis C.

HBV vaccine has been shown to provide excellent protection against the disease and therefore prevents HB2Ag carrier state which results in chronic liver disease and HCC.

In addition to vaccination, HCC prevention programs should include the screening of blood and blood products for hepatitis B and C viruses before transfusion; an increase in public awareness and health education about hepatitis B and C and their relation with HCC.

Since clinical presentation is too late to afford the patient much chance of recovery the outcome of the disease could be greatly altered by early detection and diagnosis by means of the serological markers.

### **The HCC serology markers are:**

- 1 Serum Alfa-fetoprotein (AFP) level in blood
- 2 GTT iso-enzyme II

Both are sensitive tests and their sensitivity could be increased if the two tests are combined.

The sudden rise in AFP is significant and should alert the clinician for the early detection of HCC cases in hepatitis B carriers.

Since AFP serology test is sensitive and not expensive, it should be used in the screening of HCC in hepatitis B carriers. The objective of conducting the AFP screening test is to detect HCC as early as possible. A single test is therefore inadequate. It should be performed periodically for hepatitis B carriers, to ensure the early detection of HCC, that is, as soon as it develops. HCC would be better managed at this early stage when surgery is effective and the prognosis of such a highly malignant carcinoma is good.

Since primary health care is the first medical facility that the patient has access to and the goal of the HCC management is prevention rather than treatment, primary health care can participate enormously in the prevention of HCC. It is therefore, of vital importance to conduct the screening of the hepatitis B carrier routinely and periodically using serum levels of AFP, to identify susceptible cases and apply the other diagnostic procedures to them. Such patients will have the opportunity of early treatment during the asymptomatic stage rather than wait till the presenting symptoms have become extreme, when the outcome is invariably poor.

In summary, HCC is common in hepatitis B carriers and the AFP test is an important screening procedure for them.

## **RECOMMENDATIONS**

Since there is a significant number of hepatitis B carriers in Saudi Arabia who are a high risk group for HCC, the following are recommended:

- 1 Initiation of a screening program for HCC through AFP blood level test in Saudi Arabia.
- 2 Routine and Periodic screening of hepatitis B carriers with the AFP test.
- 3 Test the hepatitis B carriers attending primary health care centers as well as hospital, in order to achieve the aim of early detection and management of HCC in Saudi Arabia.