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Mechanisms of hepatocellular carcinoma progression

Ogunwobi OO *et al.* Mechanisms of HCC progression

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Abstract

Hepatocellular carcinoma (HCC) is the most common primary malignancy of the liver. It is the second leading cause of cancer-related deaths worldwide, with a very poor prognosis. In the United States, there has been only minimal improvement in the prognosis for hepatocellular carcinoma patients over the past 15 years. Details of the molecular and other mechanisms of HCC progression remain unclear. Consequently, there is an urgent need for better understanding of these mechanisms. HCC is often diagnosed at advanced stages and most patients will therefore need systemic therapy, with sorafenib being the most common at the present time. However, sorafenib therapy only minimally enhances patient survival. This review provides a summary of some of the known mechanisms that either cause HCC or contribute to its progression. Included in this review are the roles of viral hepatitis, non-viral hepatitis, chronic alcohol intake, genetic predisposition and congenital abnormalities, toxic exposures, and autoimmune diseases of the liver. Well-established molecular mechanisms of HCC progression such as epithelial-mesenchymal transition, tumor-stromal interactions and the tumor

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Despite the established efficacy of **sorafenib** in advanced **hepatocellular carcinoma (HCC)**, a significant number of sorafenib-treated patients experience disease **progression**. Current guidelines recommend either best supportive care or clinical trial enrollment for this population.

Cited by: 14 **Author:** A. Ruth He, Alec S. Goldenberg
Publish Year: 2013

Hepatocellular Carcinoma: Causes, Mechanism of Progression ...

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Molecular mechanisms of hepatocellular carcinogenesis may vary depending on different factors and this is probably why a large set of mechanisms have been associated with these tumours. Various biomarkers including α -fetoprotein, des- γ -carboxyprothrombin, glypican-3, golgi protein-73, squamous cell carcinoma antigen, circulating miRNAs and altered DNA methylation pattern have shown ...

Cited by: 7 **Author:** Amit Kumar Singh, Ramesh Kumar, Abha...
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Molecular mechanisms of hepatocellular carcinoma ...

<https://aasldpubs.onlinelibrary.wiley.com/doi/abs/10.1002/hep.22580>

Abstract. **Hepatocellular carcinoma (HCC)** typically has poor **prognosis**, because it is often diagnosed at an advanced stage. Heterogeneous phenotypic and genetic traits of affected individuals and a wide range of risk factors have classified it a complex disease. **HCC** is not amenable to standard chemotherapy and is resistant to radiotherapy.

Cited by: 618 **Author:** Rajagopal N. Aravalli, Clifford J. Steer, Eri...
Publish Year: 2008

Molecular mechanisms in hepatocellular carcinoma ...

<https://www.sciencedirect.com/science/article/pii/S152169180400174X>

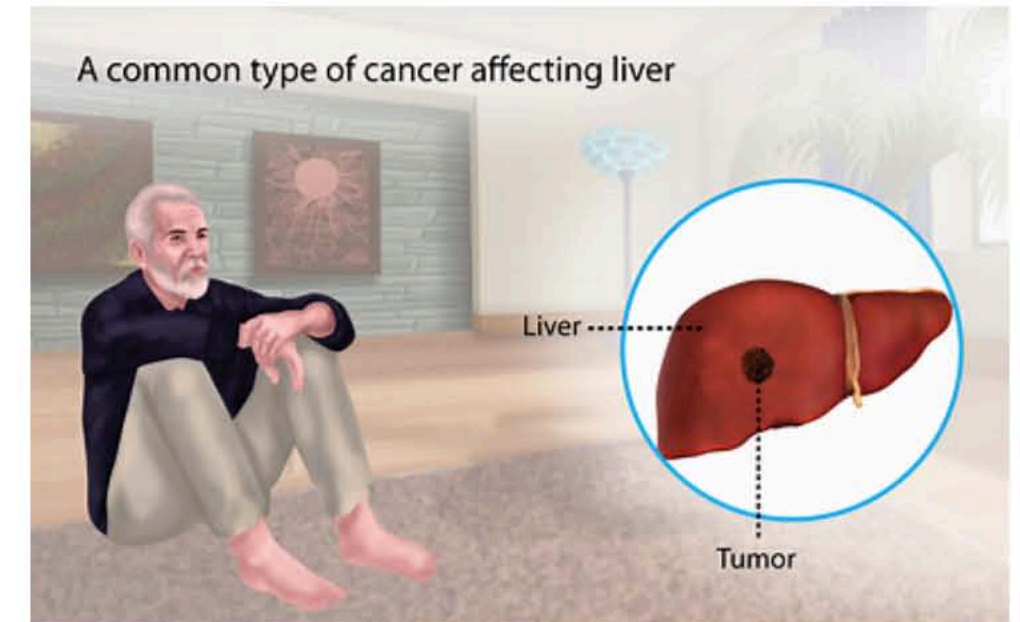
Molecular **mechanisms** in **hepatocellular carcinoma** development. Author links open overlay ...
However, so far, the pathogenesis of HCC appears to be quite heterogenous among patients. In particular,



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Say something...

Hepatocellular carcinoma



The most common form of liver cancer often seen in people with chronic liver diseases like cirrhosis.

- Common (More than 200,000 cases per year in US)
- May be preventable by vaccine
- Diagnosis often requires lab test or imaging
- Treatment from medical professional advised
- Can last several months or years

Caused mainly due to the chronic infection of the liver or DNA mutation of the liver cells. Characterized by unexplained weight loss, upper abdominal pain and yellowing of the skin. Treatment options include hepatectomy, target drug delivery and use of radiation to kill the cancerous cells.

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