

RISK FACTORS FOR HEPATOCELLULAR CARCINOMA IN MEN OF NORTHEAST REGIONS OF ASIA WITH HIGH, MEDIUM, AND LOW INCIDENCE RATES

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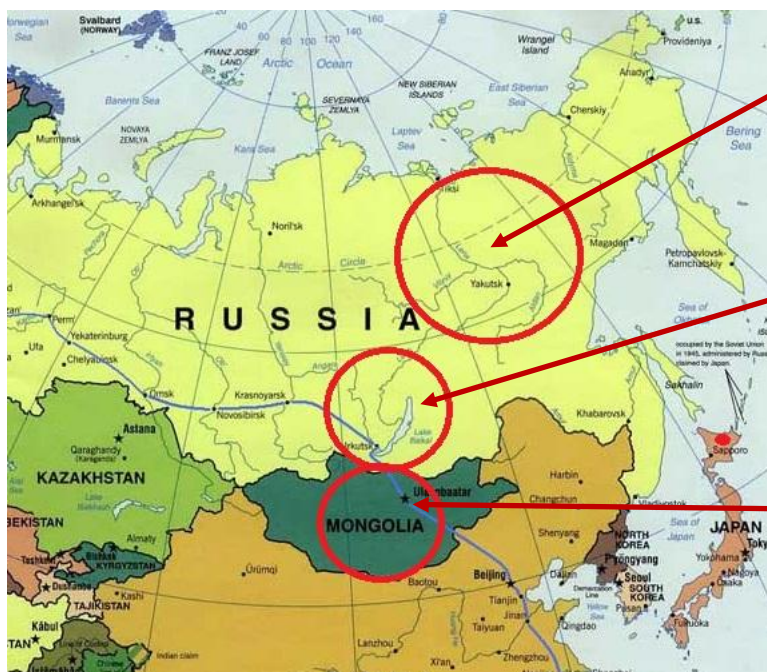
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Objectives: to assess the significance of certain genetic and external risk factors for hepatocellular carcinoma (HCC) in males of Northeast regions of Asia with different incidence rates.

Patients and Methods: The study was performed in the adjacent territories of northeast Asia: the Asian part of Russia (Baikal region), the Republic of Sakha-Yakutia (Yakutia) and Mongolia (figure).



Yakutia – HCC incidence 14.9⁰/₀₀₀₀
(n=44 cases)

Baikal region – HCC incidence 4.9⁰/₀₀₀₀
(n=46 cases)

Mongolia – HCC incidence 55.5⁰/₀₀₀₀
(n=108 cases)

Results: Markers of viral hepatitis C, B, D were detected in 100% of HCC patients in Yakutia; 96.2% in Mongolia. In the Baikal region among the risk factors, viral hepatitis is 72.8%, the rest is alcohol use, NASH, obesity, and diabetes. Among the genetic factors in the ethnic group of Mongols with HCC a significant predominance of carriers of the CC genotype rs4522809 of the *TGFBR2* gene was found in the recessive model (16.6 vs 7.4%; CI 1.04-6.03; OR=2.5; p=0.036).

Conclusion: In regions with a high and medium incidence of HCC, infection with hepatitis B, C, and D viruses is of greatest importance among risk factors. Metabolic factors are of secondary importance and prevail in regions with a low incidence of infection. Among Mongolian patients with HCC the CC genotype rs4522809 of the *TGFBR2* is more common, indicating a genetic predisposition to carcinogenesis in carriers of this SNP in mongoloids.

The study was carried out with the financial support of the Ministry of Education and Science of the Russian Federation, Federal Targeted Program for Research on Priority Areas.

*Partnership program of Hubert Curien "Kolmogorov", "Evolution of Viral Hepatitis in Liver Cancer";
Unique Project Identification Number: RFMEFI61618X0098.*