

What's the clonality status and allelotype of focal nodular hyperplasia?

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Focal nodular hyperplasia (FNH) is a lesion found in an otherwise normal liver, and is considered to be parenchyma overgrowth responsive to increased blood flow secondary to vascular malformations. While its clinical outcomes are believed to be different from hepatocellular adenoma and carcinoma, its pathogenesis is largely unclear and its distinction from hepatocellular adenoma is sometimes difficult.

A research article to be published on October 7, 2009 in the *World Journal of Gastroenterology* addresses this question. The authors examined 12 FNH lesions via histological approaches, X-chromosome inactivation and allelotyping assays, using 12 hepatocellular adenomas and 22 hepatocellular carcinomas as references. Nodules of different types were isolated from FNH by microdissection and tested for clonality and genetic alterations.

Nodules of altered hepatocytes (NAH), the putative precursors of both hepatocellular adenoma and carcinoma, were found in all the FNH lesions. Polyclonality was revealed in all of the 10 FNH lesions, and loss of heterozygosity (LOH) was not detected in any of 6 FNH lesions examined, the results demonstrated their polyclonal nature and showed differences compared to hepatocellular neoplasms. In contrast, monoclonality was revealed in 21 (40%) of the 52 microdissected NAH. LOH was found in NAH, being highly frequent at 6 loci on 8p, 11p, 13q and 17p.

The results of clonality analyses provide an approach for the differential

diagnosis of FNH from hepatocellular adenoma and well-differentiated carcinoma. In addition, elucidation of the pathogenesis the NAH, representing hepatocytic microadenoma, may lead to further understanding of early human hepatocarcinogenesis.

More information: Cai YR, Gong L, Teng XY, Zhang HT, Wang CF, Wei GL, Guo L, Ding F, Liu ZH, Pan QJ, Su Q. Clonality and allelotype analyses of focal nodular hyperplasia compared with hepatocellular adenoma and [carcinoma](#). *World J Gastroenterol* 2009; 15(37): 4695-4708, www.wjgnet.com/1007-9327/15/4695.asp

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