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研究課題名（和文）

 肝細胞癌の発癌・進展の分子機構：造影超音波クッパー相と遺伝子発現を用いた融合解析
 研究課題名（英文）

 Moleculer mechanism of Hepatocarcinogenesis and Development : Combined Analysis with
 Kupffer phase Contrast-enhanced US and Gene Expression.

研究代表者

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研究成果の概要（和文）：

肝細胞癌の多段階発癌は、異型結節から早期肝癌を経て、多血性の中分化型肝炎に至る。その過程における造影超音波クッパー相の所見と遺伝子発現を検討した。その結果、異型結節ではほぼ全例に OATP8 が発現するが、造影超音波クッパー相で低信号を呈す早期発癌ではほぼ全例において OATP8 の発現を認めなかった。また異型結節では Glypican3, HSP70, CAP2, GS, Bmi-1 の発現を認める例はなかったが、造影超音波クッパー相で低信号を呈す早期肝癌ではこれらの遺伝子群の発現を認めた。以上より、臨床的には造影超音波クッパー相で低信号を呈す結節は治療対象とすべき結節であることが確認された。

研究成果の概要（英文）：

OATP8 expression is observed in dysplastic nodule, but not in early hepatocellular carcinoma (e-HCC), which is shown as low intense on kupffer phase contrast-enhanced US. In addition, Glypican3, HSP70, GS, CAP2, Bmi-1 are highly expressed in e-HCC during multistep hepatocarcinogenesis.

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研究分野：総合領域

科研費の分科・細目：人間医工学・医用システム

 キーワード：①超音波医科学 ②ソナゾイド造影超音波 ③肝細胞癌 ④クッパー細胞
 ⑤遺伝子多型

1. 研究開始当初の背景

肝細胞癌は異型結節、早期肝癌、進行肝癌とた段階的に発癌進展していくが、異型結節、早期肝癌の遺伝子発現が進行癌のそれと差があるがどうかについてはいまだ明らかにされていない。

2. 研究の目的

造影超音波クッパー相で低信号となる乏血性結節に対し、さまざまな遺伝子を染色し、多段階発癌のどの段階でこれらの遺伝子発

現の消失、出現が現れるかを検討する。

3. 研究の方法

組織学的に異型結節、早期肝癌と診断された結節に対し、OATP8, GS, Glypican3, HSP70, CAP2, Bmi-1 の発現を検討し、どの時点でこれらの遺伝子変化が生じているかを検討する。

4. 研究成果

ソナゾイド超音波クッパー相で低信号を

呈する結節は、異型結節の場合はこれらの遺伝子群に変化は見られず、早期肝癌になって始めて OATP8 の発現低下、Glypican3, HSP70, CAP2, Bmi-1 の発現がみられることが明らかとなった。

5. 主な発表論文等

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