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EXTRA-HEPATIC FEEDING ARTERY: AN IMAGING FEATURE PREDICTES PROGNSIS OF HEPATOCELLULAR CARCINOMA

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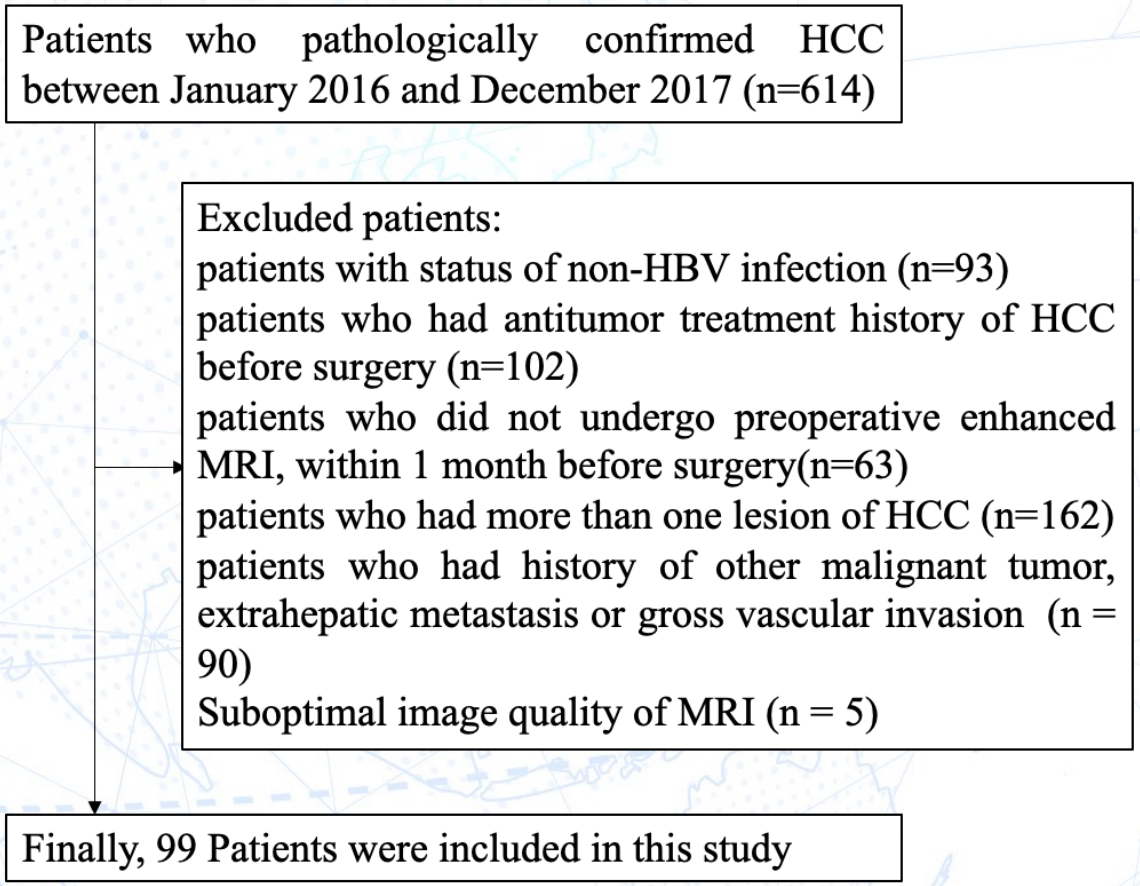
Aims:

To identify imaging features that could predict prognosis after curative resection hepatocellular carcinoma (HCC)

Methods:

In this retrospective study, 99 patients with HC C were enrolled. Clinical-pathologic and MR i maging findings for predicting early recurrence and overall survival (OS). Important MR imagi ng features were compared with other findings, and multivariable logistic regression was perfor med to determine factors associated with the fe ature. The important MR imaging feature for pr edicting recurrence-free survival (RFS) and OS were identified by using a Cox proportional haz ards model.



Results:

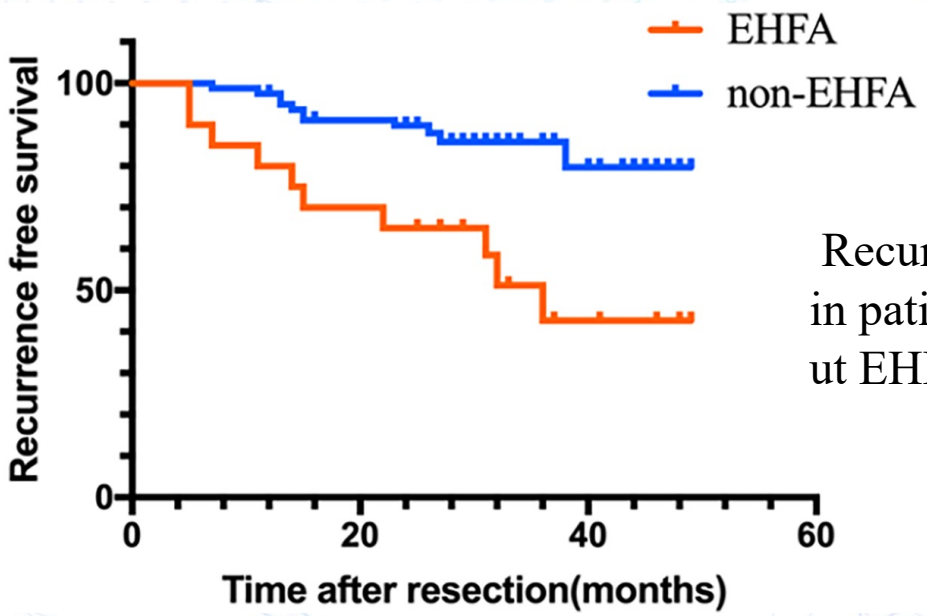
The size, TBIL, extra-hepatic feeding artery (EHFA) were associated with early recurrence, ($P < 0.05$, respectively), and TBIL, EHFA were associated with OS . EHFA was associated with early recurrence and worse OS. HCC with EHFA showed a larger size compared to HCC without EHFA (P=0.001), and MVI positive, mosaic showed more common in HCC with EHFA ($P <0.05$, respectively). MVI ($P = 0.03$) and size ($P = 0.01$) were the independent risk factor for EHFA. HCC with EHFA showed a significantly worse prognosis than those without EHFA.

Cox Survival Analysis of Predictors of Early Recurrence

Parameter	Univariable Analysis		Multivariable Analysis	
	Hazard Ratio	P Value	Hazard Ratio	P Value
Size(cm)	1.55(1.02-2.36)	0.042	1.96(1.10-3.51)	0.023
TBI	0.89(0.79-0.99)	0.035	0.87(0.77-0.98)	0.022
EHFA	0.25(0.09-0.68)	0.007	0.25(0.09-0.72)	0.010

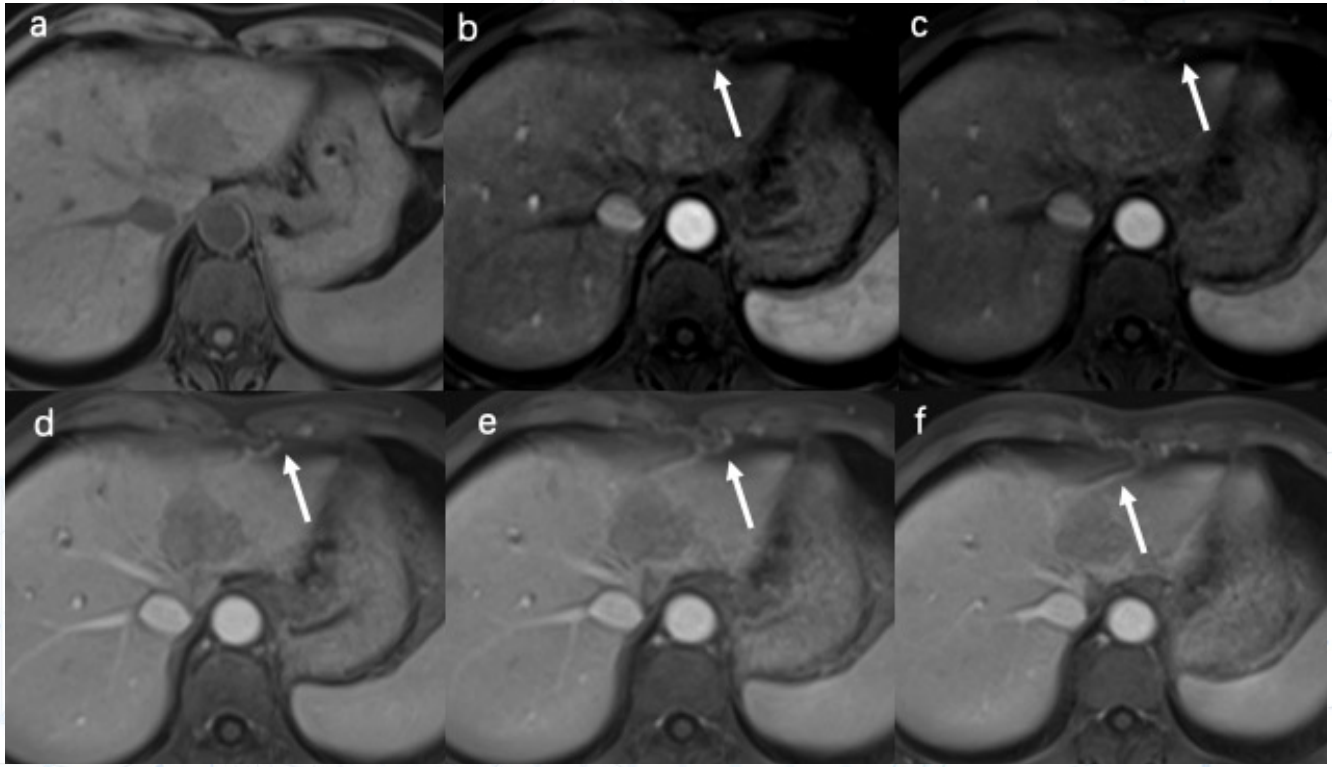
Cox Survival Analysis of Predictors of Overall Survival

Parameter	Univariable Analysis		Multivariable Analysis	
	Hazard Ratio	P Value	Hazard Ratio	P Value
TBIL	1.11(1.04-1.19)	0.004	1.10(1.02-1.19)	0.010
EHFA	0.15(0.03-0.82)	0.028	0.16(0.03-0.92)	0.039



Recurrence-free survival in patients with and without EHFA

Conclusions:
EHFA was associated with earl y recurrence, HCC with EHFA showed a significantly worse p rognosis than those without E HFA



Images show a 3.9-cm mass with extrahepatic feeding artery (EHFA) in left lobe of liver in a 59-year-old male patient with Microvascular invasion hepatocellular carcinoma (MVI-HCC). Lesion (arrow head) shows non-rim arterial phase hyperenhancement and mosaic archite cture. Contrast enhanced (a-b) arterial phase, portal venous phase (c-f) MR images demonstrate the mass with EHFA (arrow). Local tumo r recurrence occurred 7 months after curative resection.