

## **Aggressive Pursuit of No Evidence of Disease Status in Hepatoblastoma Improves Survival. An Observational Study.**

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### **Abstract**

#### **Background**

The utility of repeated surgical interventions in hepatoblastoma to achieve no evidence of disease (NED) is not well-defined. We examined the effect of aggressive pursuit of NED status on event-free (EFS) and overall survival (OS) in hepatoblastoma with subgroup analysis of high-risk patients.

#### **Methods**

Hospital records were queried for patients with hepatoblastoma from 2005 to 2021. Primary outcomes were OS and EFS stratified by risk and NED status. Group comparisons were performed using univariate analysis and simple logistic regression. Survival differences were compared with log-rank tests.

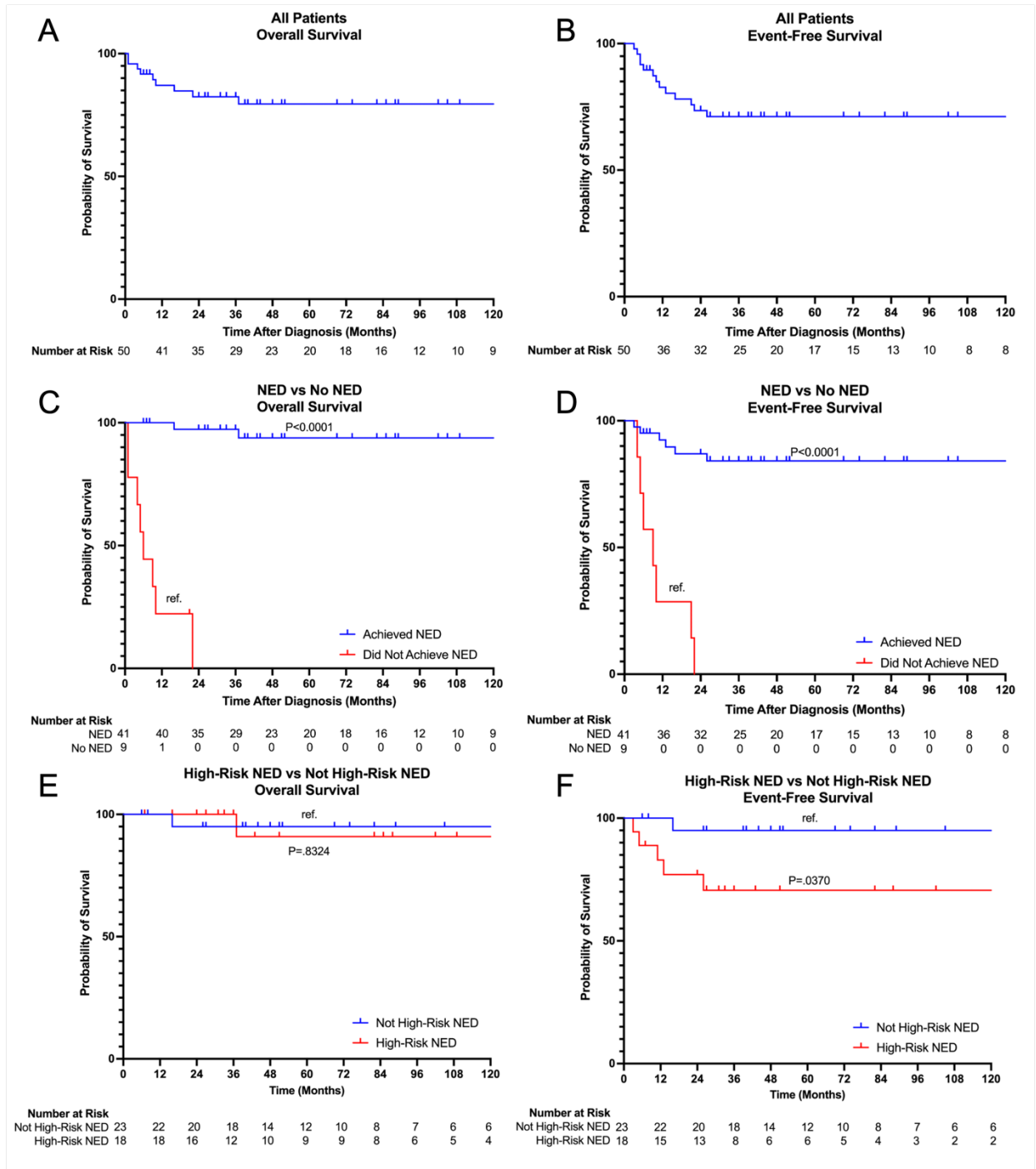
#### **Results**

Fifty consecutive patients with hepatoblastoma were treated. Forty-one (82%) were rendered NED. NED was inversely correlated with 5-year mortality (OR 0.006; CI 0.001–0.056;  $P < .01$ ). Ten-

year OS ( $P < .01$ ) and EFS ( $P < .01$ ) were improved by achieving NED (Figure 1A-D). Ten-year OS was similar between 24 high-risk and 26 not high-risk patients when NED was attained ( $P = .83$ ) (Figure 1E). Fourteen high-risk patients underwent a median of 2.5 pulmonary metastasectomies, 7 for unilateral disease, and 7 for bilateral, with a median of 4.5 nodules resected. Five high-risk patients relapsed (Figure 1F), and three were salvaged.

### **Conclusions**

NED status is necessary for survival in hepatoblastoma. Repeated pulmonary metastasectomy and/or complex local control strategies to obtain NED can achieve long-term survival in high-risk patients.



**Figure 1. Survival Analyses.** **1A.** Overall survival of all 50 patients with hepatoblastoma. **1B.** Event-free survival of all 50 patients with hepatoblastoma. **1C.** Overall survival stratified by NED status. **1D.** Event-free survival stratified by NED status. **1E.** Overall survival of patients with NED

stratified by high-risk status. **1F.** Event-free survival of patients with NED stratified by high-risk status. NED signifies no evidence of disease; ref, reference.