The 1-Year Outcomes Following Liver Resection For Liver Metastasis Colorectal Cancer In King Chulalongkorn Memorial Hospital

Thitima Klomkleao, M.D. and Virote Sriuranpong, M.D.

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**Background:** Liver resection is the treatment of choice of liver metastases colorectal cancer (LMCRC). A variety of factors that influence recurrence and survival have been identified but still inconsistent for general applicability. To report our single institution experienced to date of liver resection for LMCRC. We have identified factors that influence recurrence and survival in an attempt to improve future outcome.

**Method:** A retrospective study was conducted among 102 liver metastases colorectal cancer patients who underwent liver resection during the year 2007–2011 and had at least 1 year follow up in The King Chulalongkorn Memorial Hospital.

**Results:** Of 102 patients had one resection, 24 patients had two resections and 3 had three resections. Of those, 47 (46.1%) patients had recurrence within 1 year. 3- and 5-year overall survival rate was 67.6% and 25.4%. 3-year disease-specific survival rate was 36.3%. 5-year disease-specific survival have not yet reached. The median overall survival was 60.5 months (range 9.9-101.4 months). The median disease-specific survival was 40.9 months (range 3.9-71.8 months). The overall morbidity was 21%. Statistical analysis included univariate analysis: lymph node involvement of primary tumor (P=0.041), preoperative chemotherapy (P=0.001), did not receive postoperative chemotherapy (P=0.024), CEA level before liver resection > 200 ng/ml (P=0.001) and CEA level at 4-12 weeks after liver resection > 5 ng/ml (P=0.019) were associated with higher 1-year recurrence rate. Patients with these factors: older than 60 years (P=0.023), female gender (P=0.022), presence of lymphovascular invasion in primary tumor (P=0.048), CEA level at time before preoperative chemotherapy (P=0.048) and before liver resection > 200 ng/ml (P=0.012) associated with reduced 3-year disease-specific survival rate. On multivariate analysis, there was no statistically significant factor that influences to increase 1-year recurrence rate. Baseline CEA at time before preoperative chemotherapy level > 200 ng/ml remains independent predictive of poor 3-year disease specific survival rate (HR 2.5 95%C1 1.7-6.5, P= 0.002). Of 89 patients with recurrence, there were 42 patients experienced repeated surgical resection. Their disease-specific median survival was significant better than those with unresectable recurrence (43.6 versus 34.3 months, P= 0.001).

**Conclusion:** Liver resection remains the treatment of choice for LMCRC with curative intent. Even though recurrence rate within 1 year is still high, repeated resection can improve the survival outcome. Longer follow up for 5-year survival after liver resection is needed to conclusion. The prognostic factors are not weighed according to their impact, heterogeneity of clinicopathological character of disease and small sample size.