FACTORS AFFECTING SURVIVAL IN PATIENTS WITH PULMONARY METASTASES FROM COLORECTAL CANCER WITH PREVIOUSLY RESECTED LIVER METASTASES WHO UNDERWENT LUNG METASTASECTOMY

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Aim: Lung and liver are the most common sites of metastases from colorectal cancer (CRC), and approximately 15% of patients with CRC will develop pulmonary metastases (PMs) requiring surgery. After resection of PMs, the cumulative 5-year overall survival (OS) is similar to that of patients who underwent resection of liver metastases (LMs). However, the presence of simultaneous LMs and PMs is usually considered an adverse prognostic factor. The purpose of this study was to evaluate factors affecting survival after lung metastasectomy in patients with CRC who had previously undergone liver resection for LMs.

Methods: Twenty-two patients (14 men, 8 women, median age 67 years, range 48-77 years), previously treated for CRC, were identified as having PMs, and subsequently scheduled for pulmonary metastasectomy. Twelve (Group 1) patients had already undergone liver resection for LMs, while the others (N = 10) had never developed LMs (Group 2).

Results: The 5-year OS was 16.7% and 30% in Groups 1 and 2, respectively (χ² = 0.03, p = 0.04; OR = 2.09, 95%CI 1.06-4.11). Overall, 32 PMs (median 1.5, range 1-5 nodules per patient) were removed (G1 = 20, G2 = 13, χ² = 2.97, p = 0.08), and the mean size of the metastases was 17 ± 5 mm (G1 = 16 ± 3 mm; G2 = 19 ± 4 mm; t = 2.01, p = 0.06). In both Groups (G1 vs. G2), no significant correlation was found between age of the patients and size of the PMs (R = –0.560, p = 0.09 vs. R = –0.58, p = 0.08), and between age and OS (R = 0.52, p = 0.08 vs. R = 0.20, p = 0.58). There was a weak but significant inverse correlation between size and OS only in G2 patients (R = –0.64, p = 0.04).

Multivariate analysis showed that the number (>1) of PMs represented the only independent risk factors affecting OS (log-rank test = 4.39, p = 0.04).

Conclusions: In patients with CRC the occurrence of PMs after liver resection for LMs is a weak adverse prognostic factor, as well as the age of the patients and size of the PM. However, regardless of the previous hepatic involvement, is the presence of multiple PMs that affects significantly survival.

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