

## Surgical Management and Outcome of Metachronous Krukenberg Tumors from Gastric Cancer

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**Background:** The question of whether resection should be performed in Krukenberg tumors from gastric cancer has yet to be adequately examined. Despite some reports on the surgical treatment of Krukenberg tumors, the outcomes after resection are not well characterized.

**Methods:** Using a prospective gastric cancer database, a total of 34 patients with ovarian recurrence of gastric cancer after curative surgery were reviewed for the presentation, clinical features, and outcomes after resection.

**Results:** The majority of patients was in the premenopausal state and had bilateral ovarian involvement. The most common presenting symptom was an abdominal mass (35.3%). Tumor size ranged from 3.5 to 20 cm with 61.8% measuring larger than 10 cm. In 17 patients who had metastatic disease confined to the pelvis, a complete gross resection (R0) was achieved. In the other 17 with the disease beyond the pelvis gross residual tumors remained after the resection (R1). The median survival of all patients was 11 months (95% confidence interval [CI] 8~14), and that of the patients rendered R0 was 18 months (95% CI, 14~22), in comparison with 9 months (95% CI, 3~15) for those with R1 resection ( $P=0.0001$ ; log-rank test). The median progression free survival was also significantly longer for the patients with R0 resection than those with R1 resection (8 months, 95% CI: 5~11 versus 5 months, 95% CI: 4~6,  $P=0.0103$ ). Multivariate analysis identified R0 resection as the only significant factor predictive of survival.

**Conclusions:** In the management of Krukenberg tumors after gastric cancer, a metastasectomy may significantly improve the overall and progression free survival if it could render a complete gross resection. To define the patients group that benefits most from resection, the extent of disease and resectability must be carefully evaluated before surgery.