

## C12

### The Clinical Utility of Ki-67 in Assessing Tumor Biology and Aggressiveness in Patients with Appendiceal Carcinoids

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**Purpose:** To elucidate the correlation of Ki-67, a growth fraction marker of cell proliferation, with tumor biology and survival in patients with appendiceal carcinoid tumors.

**Method:** A retrospective chart review was conducted on 45 patients with appendiceal carcinoid tumors who underwent operative intervention from 1991 - 2008. MIB-1, a monoclonal antibody of Ki-67 measuring its expression, was used to determine cell proliferation and correlated with clinical and histological parameters. MIB-1 index was based on the WHO (world health organization) classification.

**Result:** Of the 45 patients, 28 had tumors <2cm; 8 >2cm; and 9 with unspecified tumor size. No significant difference was demonstrated in MIB-1 index between patients with tumors <2cm vs. >2cm: MIB-1<2% (71% vs. 63%; p=0.146), MIB-1 2-15% (14% vs. 13%; p=0.086) and MIB-1>15% (14% vs. 25%; p=0.356), respectively.

Eleven patients had metastatic disease on presentation: 7 had MIB-1 index <2%, 2 had index 2-15% and 2 with index >15%. No significant correlation between MIB index and metastasis was demonstrated (p=0.774).

Median follow-up was 32 months (range 6-122 months) with a 53.3% follow-up rate. Of the 24 patients with follow up, there were 5 mortalities and 2 recurrences. No significant difference in survival was demonstrated by MIB-1 index.

**Conclusion:** This study demonstrated no correlation between Ki-67 and tumor size or presentation with metastasis. While no significant difference was demonstrated in survival rate with increasing MIB-1 index, sample size and duration of follow-up limits definitive conclusions and further investigation is required. As prognostic factor, Ki-67 may not be valuable in determining tumor aggressiveness or predicting survival.