The impact of time and team on primary cytoreduction outcomes

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Objective

The degree of cytoreduction at time of initial surgery for epithelial ovarian cancers is correlated with overall survival. Given that surgery can be physically and mentally taxing on the surgeon, we sought to examine if there were temporal and/or team relationships related to primary cytoreduction outcomes.

Methods

All stage IIIB-IVB ovarian cancer patients who underwent primary surgery at our institution from 6/08 to 12/14 were identified and a retrospective chart review was performed. Univariate and multivariate analysis were used to test the strength of association between variables. Survival probabilities were estimated and plotted using the Kaplan-Meier method.

Results

There were 244 patients with 36 (14.8%) with complete, 139 (57.2%) with optimal and 68 (28%) with suboptimal cytoreduction. Start time (p=0.06) or number of cases per day (p=0.84) did not play a role. Team characteristics including number of assistants (p=0.07) or the surgeon’s years of experience (p=0.87) did not affect the degree of debulking. Factors that were statistically associated with complete or optimal cytoreduction included stage (p=0.02), histology (p<0.01), lack of blood transfusion (p=0.03), lower pre-op CA-125 (<0.01), and lower estimated blood loss (<0.01). Patients with suboptimal cytoreduction had longer lengths of
hospital stay (<0.01) and higher 30-day readmission rates (p=0.03).

**Conclusion**

Our study demonstrated that operative start time, number of cases per day, surgeon’s years of experience as well as number of assistants also did not affect the degree of cytoreduction. Temporal and team factors were not significant in achievement of optimal cytoreduction in the setting of advanced ovarian cancer primary cytoreduction.

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