Reviewer’s report

Title: Identification of prognostic factors and surgical indications for metastatic gastric cancer.

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Reviewer: Ryan Fields

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Mohri, et al: Identification of Prognostic Factors and Surgical Indications for Metastatic Gastric Cancer

Summary

Metastatic gastric cancer has a poor prognosis with current management consisting of chemotherapy. The authors sought to identify prognostic factors and to retrospectively evaluate clinical indicators for surgery (gastrectomy + or – metastatectomy) in metastatic gastric cancer. One hundred twenty three cases of metastatic gastric cancer were retrospectively reviewed from January 1999 to December 2011. Patient tumor, laboratory, surgical, and chemotherapy factors were analyzed with overall survival as the endpoint. The authors found that elevated NLR, CA 19-9, and PS are pretreatment predictors of poor prognosis. They concluded that gastrectomy with or without metastatectomy may prolong survival in patients who do not have risk factors affecting survival.

Major Critiques

Overall, this manuscript lacks adequate data analysis and breakdown to prove that surgery is an appropriate treatment for patients’ with metastatic gastric cancer. The authors retrospectively reviewed 123 metastatic gastric cancer cases. In table 1, they compare the whole group to the gastrectomy group. The whole group should be further broken down to patients who did not have surgery. It is necessary to have statistical analysis performed comparing these group variables and the p-values as they may have statistically significant differences. Additionally, more information pertaining to treatment needs to be provided, such as number of patients per group that received neoadjuvant and/or adjuvant chemotherapy. Also, how did the patients present for surgery: bleeding, perforation, or obstruction? Were they symptomatic? It is unclear if there was a selection bias.

Most importantly, it is unclear why only 28% of the surgical patients had preoperative chemotherapy. Palliative chemotherapy is the mainstay of treatment for metastatic gastric cancer. It needs to be clearer as to which patients underwent chemotherapy. The author needs to elaborate and explain why so few patients received chemotherapy prior to surgery.

A larger prospective trial would be needed to further evaluate surgery as a treatment in metastatic gastric cancer.
Minor Critiques
1. Figures 1-5 are Kaplan Meier survival curves, and each of these needs a legend. Also, the x-axis of each should include number of patients at risk. The legend should include the n and the p-value.
2. Table 1 should not be supplemental.
3. The univariate analyses (tables 2 and 5) should not be supplemental.
4. In table 4, the postoperative complication data is not necessary.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
I declare that I have no competing interests