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Abstract: BACKGROUND: Gastrojejunostomy and stent placement are the most commonly used treatments for malignant gastric outlet obstruction (GOO). The preference for either treatment largely depends on the expected survival. Our objective was to investigate predictors of survival in patients with malignant GOO and to develop a model that could aid in the decision for either gastrojejunostomy or stent placement.

METHODS: Prognostic factors for survival were collected from a literature search and evaluated in our patient population, which included 95 retrospectively and 56 prospectively followed cases. All 151 patients were treated with gastrojejunostomy or stent placement.

RESULTS: A higher WHO performance score was the only significant prognostic factor for survival in our multivariable analysis (HR 2.2 95%CI 1.7-2.9), whereas treatment for obstructive jaundice, gender, age, metastases, weight loss, level of obstruction and pancreatic cancer were not. A prognostic model that includes the WHO score was able to distinguish patients with a poor survival (WHO score 3-4, median survival: 31 days) from those with a relatively intermediate or good survival (WHO score 2, median survival: 69 and WHO score 0-1, median survival: 139 days, respectively).

CONCLUSIONS: Only the WHO score is a significant predictor of survival in patients with malignant GOO. A simple prognostic model is able to guide the palliative treatment decision for either gastrojejunostomy (WHO score 0-1) or stent placement (WHO 3-4) in patients with malignant GOO.

Strengths
- Appropriate duration of follow-up.
- Study provides treatment suggestions to patients and their physicians according to WHO performance status.
- Incompletely entered data labeled as “missing”.
- No conflicts of interest

Weaknesses
- Small study size (151 patients)
- Mix of retrospectively and prospectively collected data may have underestimated the influence of certain prognostic factors (gender, mets, weight loss) on survival.
- Mix of randomized and non-randomized data introduces an element of bias as patients with a higher WHO performance score would likely have been treated with stenting. This would likely reduce their expected survival according to previously published works of the paper’s authors.

Relevance to Palliative Care
Although many articles exist analyzing the prognostic factors for survival in patients with pancreatic cancer, there is very little knowledge available about the survival of patients presenting specifically with malignant bowel obstruction (MBO). It is useful to understand what factors predict the outcome in patients with MBO as it helps guide the palliative patient’s decision regarding their therapeutic options; specifically stenting versus gastrojejunostomy.