Tumor response and postoperative morbidity in patients with gastroesophageal adenocarcinoma treated with neoadjuvant chemotherapy: is there an association?

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The recommended treatment for locally advanced gastroesophageal adenocarcinoma has changed to a multimodal approach including neoadjuvant chemotherapy. The aim of this study was to assess potential associations between response to neoadjuvant therapy and postoperative morbidity in patients with gastroesophageal adenocarcinoma.

61 patients undergoing surgical resection of gastroesophageal adenocarcinoma following neoadjuvant chemotherapy were analyzed. Patients were dichotomized into histopathological responders (Becker grade Ia-II, n=37) and non-responders (Becker grade III, n=24). Perioperative complications were assessed according to the Clavien-Dindo classification. Variables were analyzed using contingency tables and chi-test, or Fisher's exact test.

20/37 responders (54.1%) and 17/24 non-responders (70.8%) had perioperative complications of any grade (p=0.19). The most frequent complications were anastomotic leakage, which had a higher incidence among non-responders (4/24; 16.7%) than responders (1/37; 2.7%; Fisher's test: p=0.07); and pulmonary complications; which showed no difference in incidence between non-responders (11/24; 45.8%) and responders (13/37; 35.1%; p=0.57).

To conclude, in patients undergoing resection of gastroesophageal adenocarcinoma after neoadjuvant chemotherapy, there was no association between response and incidence of perioperative complications. There was however a borderline significant trend towards a higher risk of anastomotic leakage in non-responders. This finding should be kept in mind by surgeons and oncologists when treating such patients.