Erythropoietin-alfa during neoadjuvant chemotherapy for locally advanced esophagogastric adenocarcinoma.

BACKGROUND: In a previous study we showed that many patients with esophagogastric adenocarcinoma experience anemia during neoadjuvant chemotherapy. We now investigated the role of erythropoietin in managing anemia during neoadjuvant chemotherapy.

METHODS: Patients with esophagogastric adenocarcinoma who experienced anemia (hemoglobin < 12 g/dL) during neoadjuvant treatment received erythropoietin 10,000 IE subcutaneously three times a week. Primary outcomes were the response to erythropoietin, safety, the need for allogeneic red blood cell transfusion, and the rate of postoperative complications. RESULTS: Between April 2003 and December 2004, 24 patients (median age, 62 years) were enrolled. The mean hemoglobin level before chemotherapy was 12.5 g/dL and the mean hemoglobin level before patients received erythropoietin was 11.5 g/dL. One year after involvement in the trial, 4 of 17 analyzable patients were still anemic (hemoglobin level < 12 mg/dL). Twenty-two patients received erythropoietin, and 16 (73%) responded. We could observe a significant increase in hemoglobin concentrations under therapy with erythropoietin to 12.6 g/dL (p < 0.001). Two patients (8%) received allogeneic transfusions; the rate of postoperative complications was 16%. There were no erythropoietin-related adverse events. CONCLUSIONS: Treatment
with erythropoietin is effective and well tolerated in patients with esophagogastric adenocarcinoma who experience anemia during neoadjuvant chemotherapy.