NO IMPROVEMENT IN MEDIAN SURVIVAL FOR PATIENTS WITH METASTASIZED GASTRIC CANCER DESPITE INCREASED USE OF CHEMOTHERAPY

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Background: Gastric cancer often presents late in an irresectable or metastasized stage. We conducted a population-based study to evaluate trends in systemic treatment and survival of metastasized non-cardia gastric cancer.

Methods: All patients with non-cardia adenocarcinoma of the stomach, diagnosed between 1990 and 2011 in the Eindhoven Cancer Registry area in the Netherlands were included (N = 4797). We conducted multivariable logistic regression analysis to evaluate trends in administration of palliative chemotherapy and multivariable proportional hazards regression analyses to evaluate trends in crude overall survival.

Results: The proportion of patients presenting with metastasized gastric cancer, defined as stage IV according to the TNM classification in the respective period, increased from 25% in 1990 to 44% in 2011 (p < 0.0001). The use of palliative chemotherapy increased, from 5% in 1990 to 36% in 2011, with a strong increase in particular after 2006. Younger patients aged < 50 (46%, adjusted odds ratio (ORadj) 4.3, p < 0.001) or between 50-59 (33%, ORadj 1.7 and p = 0.02) and patients with a high socioeconomic status (25%, ORadj 1.5, p = 0.02) received more chemotherapy. In contrast, patients aged 70-79 years (10%, ORadj 0.28, p < 0.001) or 80+ years (1%, ORadj 0.02, p < 0.001), patients with comorbidity (17%, ORadj 0.6 p = 0.02), linitis plastica (19%, ORadj 0.6, p = 0.04) and multiple distant metastases (18%, ORadj 0.5 P = 0.007) were less often treated with chemotherapy. A large variation was observed between 10 community hospitals in the administration of palliative chemotherapy, varying between 9% and 27%. Median overall survival remained constant between 16 (CI 12.3-18.6) and 18 (CI 15.4-21.1) weeks (p = 0.10). In addition, female sex (HR 0.8, p = 0.001), poor or undifferentiated tumor grade (HR 1.2, p = 0.001), liver metastases (HR 1.6, p < 0.001, multiple distant metastases (HR 1.5, p < 0.001) and administration of chemotherapy (HR 0.6, p < 0.001) had an independent effect on survival.

Conclusion: The increased administration of chemotherapy in patients with metastasized gastric cancer did not lead to an increase in population-based overall survival. Identification of the subgroup of patients who benefit from palliative chemotherapy is of utmost importance to avoid unnecessary treatment.