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EDITORIAL

Changing before we have to; how to mitigate disparities in pancreatic cancer care?

Mef Nilbert[a,b]

[a]Department of Hematology, Oncology, and Radiophysics, Skåne University Hospital, Lund, Sweden; [b]Hvidovre University Hospital, University of Copenhagen, Copenhagen, Denmark

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Incidence rates and death rates from pancreatic cancer are increasing, primarily due to smoking, high plasma glucose, and high body-mass index. The number of incident cases, deaths, and DALYs caused by pancreatic cancer has more than doubled during the latest three decades [1]. With aging populations, pancreatic cancer is projected to become one of the leading cases of cancer death in the Western world [2].

Effects from cancer are not equal. Social structures and practices influence preventive effects, access to care, choice of treatment and correlate with survival in several cancer types. Cancer stage, health-related lifestyle, comorbidities, and treatment seem to represent the key contributors to socioeconomic inequalities [3]. Pancreatic cancer is one of the cancer types where significant health disparities have been reported throughout the continuum of care [4].

Studies on the influence from socioeconomic inequalities on pancreatic cancer incidence have reached different conclusions. Whereas some studies suggesting a higher incidence of pancreatic cancer in populations with low income and low education, other studies have not been able to confirm such links [5,6].

Pancreatic cancer is a complex disease with a dismal prognosis and a 5-year survival below 10%. Treatment is increasingly complex with new and advanced diagnostic methods, refined surgical options, new treatment combinations, and precision medicine concepts. Though progress in outcomes for the disease is slow, multidisciplinary approaches are key and modern treatments result in more effective reduction of disease-related symptoms and prolonged survival. During recent years, principles for chemotherapy in the adjuvant as well as in the advanced-stage setting have moved from monotherapy, mostly using gemcitabine, to doublets or triplets containing, gemcitabine, 5-fluroruracil, capecitabine, oxaliplatin, irinotecan, and nab-paclitaxel.

Surgery is key for long-term survival, but access to resection has been linked to geographical and socioeconomic factors, such as race, marital status, and employment status [7,8]. Insurance coverage may be part of the problem, which is supported by data from the US on increased use of care processes and improved outcomes for pancreatic cancer following expansion of Medicaid [9]. Disparities have also been documented related to oncological treatment for pancreatic cancer. Sanford et al. linked timely treatment to economic factors, whereas access to combination chemotherapy was associated with demographic variables such as sex and race [10]. Mora et al. demonstrated that patients from areas with high deprivation index are less likely to receive adjuvant therapy for localized pancreatic cancer and have an adverse survival [11].

In pancreatic cancer, treatment according to guidelines has been linked to better survival probability. Guideline-compliance in general is suboptimal, but patients with high educational level and patients treated at high-volume centers have been found to have a higher likelihood for treatment according to guidelines [12]. In the current issue of Acta Oncologica, Ladekarl et al. report treatment disparities for advanced pancreatic cancer in Danish health care. The observations are based on data from the population-based Pancreatic Cancer Database that has been linked to national health registries [13]. Treatment patterns for advanced-stage pancreatic cancers during the years 2012–2018 were compared between tertiary centers with mean 71 patients treated annually and secondary centers with mean 31 patients. Monotherapy with gemcitabine, which has been demonstrated to be a less efficient treatment, was used in 59% at secondary centers compared to 34% in tertiary centers. The rate of introduction of the new treatment principles with doublets or triples were slower in secondary centers compared to tertiary centers. Treatment also tended to start later in the secondary centers and survival was 1.6 months longer for patients treated in tertiary centers compared to secondary centers. When the results were adjusted for first-line treatment, the survival difference disappeared, which suggests that choice of chemotherapy regimens may explain outcome disparities. Whether the patients indeed denied treatment or were not offered this could, however, not be discriminated. The study points to differences in distribution of patients and treatments between Danish hospitals treating advanced pancreatic cancer.

CONTACT Mef Nilbert mef.nilbert@med.lu.se Department of Hematology, Oncology, and Radiophysics, Skåne University Hospital, Lund 22185, Sweden

Patient-related and provider-related factors contribute to disparities in pancreatic cancer care. In the Nordic health care systems, economic factors and insurance coverage should not influence chance of treatment since health care is free with minimal self-payment. Hence, patient preferences or physician bias may represent possible explanations to the disparity observed by Ladekarl et al. [13]. The Danish data may suggest that treatment at research-focused cancer centers could be part of the solution, which is partly supported by other investigators [10,14]. Clinical trial participation may contribute to disparities. Though a multitude of clinical trials for pancreatic cancer are ongoing and trial participation has been reported to increase survival, disparities in inclusion have been reported related to race, sociodemographic factors, and treatment center [15].

The many observations of disparities in pancreatic cancer care call for an increased attention and new initiatives. Mapping of the causes of treatment differences, review of adherence to treatment principles with respect to socioeconomic variables and strategies to ensure efficient and equitable implementation of treatment guidelines are among the initiatives that will be relevant to consider to mitigate disparities and improve quality of life and increase survival in one of our most aggressive and difficult-to-treat cancer types.

Disclosure statement

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