Brief Report

Comparison of Coping, Psychological Distress, and Level of Functioning in Patients With Gastric and Colorectal Cancer Before Adjuvant Chemotherapy

Caterina Calderón, PhD, Paula Jimenez-Fonseca, PhD, MD, Carlos Jara, PhD, MD, Raquel Hernández, PhD, MD, Eva Martínez de Castro, PhD, MD, Sonal Varma, MD, Ismael Ghanem, PhD, MD, and Alberto Carmona-Bayonas, PhD, MD

Department of Clinical Psychology and Psychobiology (C.C.), Faculty of Psychology, University of Barcelona, Barcelona; Department of Medical Oncology (P.J.-F.), Hospital Universitario Central de Asturias, Oviedo; Department of Medical Oncology (C.J.), Hospital Universitario Fundación Alcorcón, University Rey Juan Carlos, Madrid; Department of Medical Oncology (R.H., S.V.), Hospital Universitario de Canarias, Tenerife; Department of Medical Oncology (E.M.d.C.), Hospital Universitario Marqués de Valdecilla, Santander; Department of Medical Oncology (I.G.), Hospital Universitario La Paz, Madrid; and Department of Medical Oncology (A.C.-B.), Hospital Universitario Morales Meseguer, Murcia, Spain

Abstract

Context. Patients with gastrointestinal cancers are at high risk for functional problems that are generally accompanied by a decline in their overall status and intense psychological distress.

Objectives. This study compares the level of functioning in individuals with gastric cancer (GC) and colorectal cancer (CRC) and analyzes whether improved functioning can be explained by patients' psychological status and coping strategies.

Methods. This is a prospective, transversal, multicenter study in patients with nonmetastatic GC and CRC before initiating adjuvant chemotherapy. Participants answered questionnaires evaluating quality of life, including functioning (European Organization for Research and Treatment of Cancer Quality of Life questionnaire), coping strategies (Mini−Mental Adjustment to Cancer), and psychological distress (Brief Symptom Inventory−18).

Results. Between December 2015 and July 2017, 266 patients with CRC and 69 patients with GC were consecutively recruited. A pathological level of functioning was more prevalent in people with GC than in those with CRC (20% vs. 5%). Individuals with GC presented worse functioning and more psychological distress and displayed more hopelessness, anxious preoccupation, and cognitive avoidance as coping strategies than those with CRC. Psychological distress and fighting spirit accounted for 40% of the functional status in GC patients, whereas psychological distress and hopelessness represented 58% of CRC patients' functional status.

Conclusion. Our findings suggest that level of functioning affects many subjects with GC and reveals the importance of developing interventions targeted at enhancing adaptive coping strategies before initiating adjuvant cancer treatment. J Pain Symptom Manage 2018;■:■−■. © *2018 American Academy of Hospice and Palliative Medicine. Published by Elsevier Inc. All rights reserved.*

Key Words

Gastrointestinal cancer, coping, functioning, psychological distress

Background

Gastric cancer (GC) is the fifth most common cancer worldwide, after lung, breast, colorectal, and prostate cancers with approximately one million new cases every year.[1] While its incidence has declined around the world in recent years, the absolute number of cases has remained stable or even risen, owing to the higher world population and life expectancy.[1] Its mortality is decreasing, particularly in endemic areas,

Address correspondence to: Caterina Calderón, PhD, Department of Clinical Psychology and Psychobiology, Faculty of Psychology, University of Barcelona, Passeig de la Vall d'Hebron 171, 08035 Barcelona, Spain. E-mail: ccalderon@ub.edu

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thanks to the implementation of early detection strategies and *Helicobacter pylori* infection treatment.[1] The greater number of GC survivors has raised interest in understanding the impact that treatment, surgery, and chemotherapy and/or radiotherapy have on their functioning and quality of life.

Beginning cancer treatment is often characterized by heightened psychological distress owing to factors such as anxiety, worry, and, in some cases, the perception that their diagnosis was delayed. This distress may be associated with and exacerbated by the decline in functioning and quality of life.[2] Coping, that is, cognitive or behavioral activity aimed at overcoming stress, has been conceptualized as either adaptive or maladaptive and affects the person's perception in a stressful situation. In the transactional model of stress,[3] the use of one kind of strategy or another influences the outcome (e.g., in better daily functioning or in terms of quality of life). Lashbrook et al.[4] suggest that subjects with breast, prostate, and colorectal cancers use different coping strategies that vary from seeking social support, accepting responsibility, to cognitive avoidance or denial. Specifically, CRC patients emphasize the importance of looking for information to manage functional difficulties and to be able to resume their social activities through emotion-based coping,[5] whereas in individuals with GC, hopelessness and resignation were associated with higher levels of anxiety, depression, and psychological distress.[6,7]

Several studies, mostly conducted in Asian populations, have compared quality of life in GC patients on the basis of the type of cancer surgery.[8,9] Most of these authors find a decline in physical and emotional functioning before the intervention that recovers beginning in the third postoperative month, while cognitive and social functioning scores failed to display statistical differences during the first year of follow-up.[10] There is a paucity of literature on the prevalence of functional difficulties in individuals with CRC initiating adjuvant chemotherapy, although the data suggest that 30%−50% are affected by these problems during and after treatment.[11,12]

This study examines and compares functioning in GC and CRC sufferers before initiating adjuvant chemotherapy and analyzes whether there are differences between groups in sociodemographic and/or clinical conditions, psychological distress, and coping strategies and, finally, if improved functioning can be explained by patients' psychological status and coping strategies.

Methods

Study Design and Participants

NEOcoping is a prospective, transversal, multicenter study promoted by the Continuous Care Group of the Spanish Society of Medical Oncology. Adults (>18 years old) with nonmetastatic, resected GC or CRC, eligible for adjuvant chemotherapy, were consecutively recruited. Patients who had received preoperative chemotherapy and/or radiotherapy were excluded. Medical oncologists proficient in gastrointestinal cancer management from 14 Spanish hospitals carried out recruitment. Participants completed study questionnaires before beginning chemotherapy and after providing informed consent. The study was approved by the Ethics Committees of each center and by the Spanish Agency of Medicines and Medical Devices.

Variables and Measures

Patient and tumor characteristics were obtained by means of interview and clinical history. The following variables were collected: gender, age, marital status, education level, occupational status, tumor stage, time between diagnosis and surgery, time between surgery and chemotherapy, if the advisability of adjuvant treatment was decided by a multidisciplinary committee, type of adjuvant treatment, chemotherapy and/or radiotherapy, and number and type of cytotoxic drugs administered.

The questionnaires completed by the patients were the European Organization for Research and Treatment of Cancer Quality of Life questionnaire, the Mini−Mental Adjustment to Cancer, and the Brief Symptom Inventory.

The European Organization for Research and Treatment of Cancer Quality of Life questionnaire[13] contains six functioning scales (physical, role, emotional, cognitive, social, global health status), rated on a four-point Likert scale ranging from 0 (not at all) to 3 (very much); the higher the score, the higher the level of functioning. A linear transformation was used to standardize the raw score; scores range from 0 to 100 (in this sample, $\alpha = 0.85$).

The Mini−Mental Adjustment to Cancer[14] contains 29 items grouped into five coping strategy subscales: fighting spirit, hopelessness, anxious preoccupation, fatalism, and cognitive avoidance (Cronbach's α was 0.80−0.79 in this sample).

The Brief Symptom Inventory[15] includes 18 items divided into three dimensions of psychological distress (somatization, depression, and anxiety) rated on a five-point scale from 0 (not at all) to 4 (extremely) (in this sample, $\alpha = 0.86$).

Statistical Analyses

Descriptive statistics are reported for demographic and clinical information. Participants were divided into those with GC and those with CRC. Independent t-tests were performed to compare differences for continuous variables. The chi-square test was used to