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Original article

Colorectal Carcinoma in the Frail Surgical Patient. Implementation of a Work Area Focused on the Complex Surgical Patient Improves Postoperative Outcome☆,☆☆

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ABSTRACT

Introduction: Advanced age and comorbidity impact on post-operative morbi-mortality in the frail surgical patient. The aim of this study is to assess the impact of a comprehensive, multidisciplinary and individualized care delivered to the frail patient by implementation of a Work Area focused on the Complex Surgical Patient (CSPA).

Methods: Retrospective study with prospective data collection. Ninety one consecutive patients, classified as frail (ASA III or IV, Barthel<80 and/or Pfeiffer>3) underwent curative radical surgery for colorectal carcinoma between 2013 and 2015. Group I: 35 patients optimized by the CSPA during 2015. Group II: 56 No-CSPA patients, treated prior to CSPA implementation, during 2014–2015. Group homogeneity, complication rate, length of stay, reoperations, readmissions, costs and overall mortality were analyzed and adjusted by Diagnosis-Related Group (DRG).

Results: There were no statistically significant differences in term of age, gender, ASA classification, body mass index, tumor staging and type of surgical intervention between the two groups. Major complications (Clavien-Dindo III–IV) (12.5% vs 28.5%, P=.04), hospital stay (12.6±6 days vs 15.2±6 days, P=.041), readmissions (12.5% vs 28.3%, P<.041), and patient episode cost weighted according to DRG (3.29±1 vs 4.3±1, P=.008) were statistically inferior in Group CSPA. There were no differences in reoperations (6.2% vs 5.3%) or mortality (6.2% vs

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7.1%). 96.9% of patients of Group I manifested having received a satisfactory attention and quality of life.

Conclusions: Implementation of a CSPA, delivering surgical care to frail colorectal cancer patients, involves a reduction of complications, length of stay and readmissions, and is a cost-effective arrangement.

Resultados de morbimortalidad en cáncer colorrectal en paciente quirúrgico frágil. Implementación de un Área de Atención al Paciente Quirúrgico Complejo

Palabras clave:
Paciente quirúrgico complejo
Asistencia integrada
Fragilidad paciente quirúrgico
Limitación del esfuerzo terapéutico

RESUMEN

Introducción: La edad avanzada y la presencia de comorbilidades repercuten en la morbimortalidad postoperatoria del paciente quirúrgico frágil. El objetivo de este estudio es valorar los resultados de morbimortalidad tras cirugía por cáncer colorrectal en el paciente quirúrgico frágil tras la implementación de un Área de Atención al paciente Quirúrgico Complejo (AAPQC).

Métodos: Estudio retrospectivo con recogida prospectiva de datos. Un total de 91 pacientes consecutivos considerados como frágiles (ASA IV o ASA III con Barthel < 80 i/o Pfeiffer > 3) fueron intervenidos entre 2013 y 2015 con diagnóstico de cáncer colorrectal con intención curativa. Grupo I (AAPQC): 35 pacientes incluidos en AAPQC durante 2015. Grupo II (No AAPQC): 56 pacientes intervenidos entre 2013 y 2014 previa implementación del AAPQC. Se analizó homogeneidad de grupos, complicaciones, estancia media, mortalidad, reintervenciones, reingresos y costes en función del GRD.

Resultados: No se encontraron diferencias significativas en edad, sexo, ASA, índex de masa corporal, estadio tumoral y tipo de intervención quirúrgica entre los dos grupos. Las complicaciones mayores (Clavien-Dindo III-IV) (11,4% vs 28,5%, p = 0,041), la estancia media (12,6 $\pm$ 6 días vs 15,2 $\pm$ 6 días, p = 0,043), los reingresos (11,4% vs 28,3%, p = 0,041) y el peso específico del episodio (3,29 $\pm$ 1 vs 4,3 $\pm$ 1, p = 0,008) fueron significativamente menores en el grupo AAPQC. No hubo diferencias en re intervenciones (6,2% vs 5,3%) ni mortalidad (6,2% vs 7,1%). El 96,9% de pacientes del grupo I manifestó una atención y calidad de vida satisfactoria.

Conclusiones: La implementación de una AAPQC en pacientes frágiles que deben ser intervenidos de cáncer colorrectal comporta una reducción de las complicaciones, estancia y reingresos, y es una medida coste-efectiva.

Introduction

The increase in life expectancy inexorably leads to an increasingly aging population, which in turn leads to increased comorbidity. Both aspects are not contraindications for surgery by themselves, but they have an enormous impact on complications and decision-making, which is made more complex.[1,2] Consequently, it is imperative to develop strategies to guarantee adequate quality care for geriatric surgical patients as well as non-geriatric patients with high comorbidity and associated frailty. We define frailty as the decrease in the physiological reserve of multiple organ systems that involves increased risk of disability and death as a result of stress.[3–5]

Several studies have demonstrated the effects of advanced age, comorbidity and frailty on morbidity and mortality in the postoperative period (even after 30 days) of patients who should undergo cancer surgery.[6–12] This usually leads to an increase in hospital stay, excessive and inappropriate consumption of resources, and sometimes unwanted or at least questionable results in quality of life and even survival.[8–12] Under these conditions, an associated progressive deterioration of the doctor-family relationship is not uncommon, and finally we may question whether the initial therapeutic decision was the most appropriate. These results could be improved by earlier detection of these patients in order to offer them individualized care according to their physical, mental and social status by a multidisciplinary team that would assume the responsibility of the entire process in a cohesive manner. We propose the creation of a Complex Surgical Patient Work Area (CSPA) to direct the entire process and manage resources until the patient returns to Primary Care. The aim of this present study is to analyze whether the management of fragile patients with colorectal cancer by an CSPA would reduce complications, re-admission rates and, consequently, costs, and whether it would facilitate decision-making and improve the level of satisfaction and quality of life of these patients.[13,14]