Trends in net survival from colon cancer in six European Latin countries: results from the SUDCAN population-based study

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Colon cancer represents a major public health issue. The aim of the SUDCAN collaborative study was to compare the net survival from colon cancer between six European Latin countries (Belgium, France, Italy, Portugal, Spain, and Switzerland) and provide trends in net survival and dynamics of the excess mortality rates up to 5 years after diagnosis. The data were extracted from the EUROCARE-5 database. First, net survival was studied over the 2000–2004 period using the Pohar-Perme estimator. For trend analyses, the study period was specific to each country. Results were reported from 1992 to 2004 in France, Italy, Spain, and Switzerland and from 2000 to 2004 in Belgium and Portugal. These analyses were carried out using a flexible excess rate modeling strategy. There were few differences between countries in age-standardized net survivals (2000–2004). During the 2000–2004 period, the 5-year net survival ranged between 57 (Spain and Portugal) and 61% (Belgium and Switzerland). The age-standardized survival at 1 and 5 years after diagnosis increased between 1992 and 2004. This increase was observed at ages 60 and 70, but was less marked at 80. This increase was linked to a marked decrease in the excess mortality rate between 1992 and 2004 until 18 months after diagnosis. Beyond this period, the decrease in the excess mortality rates among countries was modest and nearly the same whatever the year of diagnosis. There were minor differences in survival after colon cancer between European Latin countries. A considerable improvement in the 5-year net survival was observed in all countries, but the gain was mainly limited to the first 18 months after diagnosis. Further improvements are expected through the implementation of mass screening programs. European Journal of Cancer Prevention 25:S40–S47 Copyright © 2016 Wolters Kluwer Health, Inc. All rights reserved.


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Introduction

In 2012, Belgium, France, Italy, Portugal, Spain, and Switzerland registered altogether 141,861 cases of colorectal cancer and this disease was responsible for 60,213 deaths (Ferlay et al., 2013). In these countries, in 2012, the age-standardized (world) incidence of this cancer ranged from 29.4 to 36.7 and the mortality rates ranged from 9.3 to 13.6 per 100,000 person-years. Colon cancer represented about 2/3 of colorectal cancers. The European mean age-standardized 5-year relative survival after colon cancer in the EUROCARE-5 study was 57% (de Angelis et al., 2014), which makes this cancer a major public health issue. For colon cancer, there were no significant improvements in diagnostic strategy or treatment (with the exception of adjuvant chemotherapy in stage III) over the 1989–2004 period and mass screening was organized only recently. For meaningful survival comparisons between countries or time periods, a reliable indicator is needed. Net survival from cancer is the survival that would be observed if cancer were the only cause of death. This major epidemiological indicator thus enables comparisons without interference from other causes of death. The mortality rate associated with net survival is called the excess mortality rate (EMR); it corresponds to the mortality due to cancer that adds to the expected mortality due to the other causes. It is thus highly informative to provide, in addition to the net survival, a detailed description of the dynamics of the EMR over the time elapsed since diagnosis.

The present study was carried out on the basis of an initiative of the GRELL (network for cancer registration and epidemiology in European Latin countries) (http://www.grell-network.org) in collaboration with the EUROCARE network (http://www.eurocare.it). One of its objectives was a brief overview of the net survival after colon cancer over the 2000–2004 period in each country.