Survival for Ovarian Cancer in Europe: The across-country variation did not shrink in the past decade

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Ovarian cancer is one of the four main gynaecological cancers accounting worldwide for about 4% of all female cancers and 10% of all gynaecological cancers (counting breast cancer as a gynaecological cancer) [1]. The incidence of ovarian cancer is relatively stable in Western countries, as reported for Norway [2], Ontario [3] and Finland [4]. However, the proportion of ovarian cancer among gynaecological cancers is increasing, bearing in mind the decrease in cervical cancer in European countries as a result of pap smear screening programmes [5]. Survival for ovarian cancer is the poorest of all gynaecological cancers [6]. EUROCARE-4 reported five-year survival and five-year relative survival conditional on surviving the first year after diagnosis as 67.2% (95% CI 66.6–67.8), 36.1% (95% CI 35.4–36.8) and 53.7% (95% CI 52.8–54.7), respectively. Five-year relative survival was 58.6% (95% CI 57.4–59.8), 37.1% (95% CI 36.1–38.1) and 20.5% (95% CI 19.1–21.9) in women aged 15–54, 55–74 and 75–99 years, respectively. The age-standardised five-year relative survival was 38.1% (95% CI 36.9–39.3) for serous tumours and 51.9% (95% CI 49.0–54.9) for mucinous cancers and the crude five-year relative survival was 85.6% (95% CI 81.2–90.0) for germ cell cancers. Overall, the age-standardised five-year relative survival increased from 32.4% (95% CI 31.7–33.2) in 1991–1993 to 36.3% (95% CI 35.5–37.0) in 2000–2003. There is a need to better understand the reasons for the wide variation in survival of ovarian cancer in Europe. Actions aiming to harmonise the protocols for therapy should contribute to narrowing the wide gap in survival and research on screening and early detection of ovarian cancer should be enforced.

Ovarian cancer is one of the four main gynaecological cancers accounting worldwide for about 4% of all female cancers and 10% of all gynaecological cancers (counting breast cancer as a gynaecological cancer) [1]. The incidence of ovarian cancer is relatively stable in Western countries, as reported for Norway [2], Ontario [3] and Finland [4]. However, the proportion of ovarian cancer among gynaecological cancers is increasing, bearing in mind the decrease in cervical cancer in European countries as a result of pap smear screening programmes [5]. Survival for ovarian cancer is the poorest of all gynaecological cancers [6]. EUROCARE-4 reported five-year relative survival of 36% [7]. The main reasons for this poor survival are the lack of early detection methods and an unfavourable anatomical situation. More than two-thirds of ovarian cancer cases are detected at an advanced stage, and therapy of ovarian cancer is very complex and presupposes expertise in both surgery and oncology [8–10]. There has been only one step towards progress in therapy of ovarian cancer, namely the introduction of intraperitoneal chemotherapy. However, the advantage of longer survival is accompanied by serious adverse events [11]. Thus, to date therapy of ovarian cancer is a challenge and prognosis is rather poor.

Given these facts, survival for ovarian cancer is being given special attention. As an extension of the overview figures presented in the EUROCARE-4 monograph [7], we aimed on the basis of the EUROCARE database with regard to ovarian cancer to: a) present the most up-to-date estimate of one-year and five-year survival and five-year relative survival conditional on surviving the first year after diagnosis (five-year conditional survival); b) analyse survival estimates by age group and morphology; c) answer the question whether relative survival in Europe improved from the beginning of the 1990s.

Abstract

Background. Survival for ovarian cancer is the poorest of all gynaecological cancer sites. Our aim was to present the most up-to-date survival estimate for ovarian cancer by age and morphology and to answer the question whether survival for ovarian cancer improved in Europe during the 1990s. Material and methods. This analysis was performed with data from the EUROCare database. We considered all adult women diagnosed with ovarian cancer between 1995 and 2002 and life status followed up until the end of 2003. A total of 97 691 cases were contributed by 72 European cancer registries in 24 countries. We estimated the most up-to-date relative survival for a mean of 23 661 patients followed up in 2000–2003 using the period hybrid approach and described the relative survival trends from the beginning of 1990s. Results and conclusion. Overall, the European age-standardised one-year, five-year and five-year conditional on surviving one-year relative survival were 67.2% (95% CI 66.6–67.8), 36.1% (95% CI 35.4–36.8) and 53.7% (95% CI 52.8–54.7), respectively. Five-year relative survival was 58.6% (95% CI 57.4–59.8), 37.1% (95% CI 36.1–38.1) and 20.5% (95% CI 19.1–21.9) in women aged 15–54, 55–74 and 75–99 years, respectively. The age-standardised five-year relative survival was 38.1% (95% CI 36.9–39.3) for serous tumours and 51.9% (95% CI 49.0–54.9) for mucinous cancers and the crude five-year relative survival was 85.6% (95% CI 81.2–90.0) for germ cell cancers. Overall, the age-standardised five-year relative survival increased from 32.4% (95% CI 31.7–33.2) in 1991–1993 to 36.3% (95% CI 35.5–37.0) in 2000–2003. There is a need to better understand the reasons for the wide variation in survival of ovarian cancer in Europe. Actions aiming to harmonise the protocols for therapy should contribute to narrowing the wide gap in survival and research on screening and early detection of ovarian cancer should be enforced.

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