Cancers of the female genital tract in Ragusa, Sicily

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Abstract. A descriptive study of cancers of the female genital tract (cervix, endometrium, ovary, labia, vulva and vagina) in the province of Ragusa (Sicily) was carried out using incidence and mortality data of the Ragusa Cancer Registry, covering the years 1981–1987. Corpus uteri was the most frequent site of cancer, followed by cervix uteri and ovary; the highest mortality rates were exhibited by ovary cancer, whose survival at five years was 18.1 percent. A comparison of incidence and mortality rates with those observed by Italian and European registries shows that while in Ragusa rates for cancers of all sites were lower, female genital tract cancers, particularly of the uterus, were more frequent in Ragusa than in other Italian and European areas. In contrast with what has been reported by cancer registries of most developed countries, incidence of cervix cancer in Ragusa has apparently not decreased between 1981 and 1987, while mortality has increased.

Key words: Cancer registry, Female genital cancers, Incidence, Mortality, Survival

Introduction

Cancers of the female genital tract (uterus, International Classification of Diseases – 9th edition (ICD-9) 179, 180 and 182, ovary, ICD-9 183, placenta, ICD-9 181, labia, vulva and vagina, ICD-9 184) rank second, after breast, both for incidence and mortality among cancer sites in Ragusa, according to the data of the Cancer Registry [1]. The availability of population based data obtained from Ragusa Cancer Registry gives the opportunity of a descriptive study reporting data on incidence, mortality and survival by age groups and calendar year.

Cases and methods

The Ragusa Cancer Registry is a population based cancer registry responsible for the Ragusa province (1,614 km²), that is the southernmost European province. This territory contains 274,583 inhabitants, 140,245 of whom are females according to the 1981 census. The registry is the only one operating in Southern Italy, and uses an active-passive information system.

Data on deaths in the period were obtained from individual death certificates, most of which were reviewed; then, if there was evidence of an incorrect or incomplete report of the cause(s) of death, an inquiry was carried out. In fact a previous systematic investigation [2] had shown that a relevant proportion (34%) of the original data were more or less unreliable in Ragusa province. When there was sufficient evidence, the correct diagnosis was registered. The same procedure was adopted for the deaths out of the province. In a few instances, when the precise site of the cancer could not be accurately ascertained, the case was reported in the group ‘Other and unspecified’.

Incidence and mortality rates were obtained using population data of the Ragusa province by sex and age groups from 1981 census, and afterwards from mathematical estimates [3].

Survival was calculated by the Kaplan-Mayer method [4]. For all cases not found in the death files, survival was assessed by a direct investigation at the Registrar’s office of the Municipality in which the case was residing.

Results

Table 1 reports the number of cases registered for each site and the crude incidence rates per 100,000, with 95% confidence intervals (95% CI) for the periods 1981–84 and 1985–87. Number of deaths and mortality rates are reported in Table 2.
Incidence in the whole period was highest for endometrial cancer, and lowest for 'Other and unspecified cancers of the female genital tract'. Mortality rates for some sites are higher or lower from what could be expected from the corresponding incidence rates. This might possibly be attributed to errors in some of the death certificates, since part of the mortality data could not be revised and corrected by the Registry and it is likely that misclassification by the doctor issuing the death certificate might have occurred.

Comparison between age standardized incidence and mortality rates in the two periods is reported in Table 3. Mortality rate for cervix cancer appears to have remarkably increased in 1985-87 (p < 0.05). No further significant differences were observed.

Incidence rates of cancers of corpus and cervix uteri in Ragusa are higher than the European median, according to data of the European cancer registries [5], while they are lower for ovary cancer and for all sites in females (Table 4).

About 94% of the cases whose history was sufficiently defined were carcinoma (International Classification of Disease for Oncology (ICD-O) 8010–8070), 3.2% were sarcoma and 3% germinoma or other (Table 5).

Survival of the patients with cancers of cervix uteri, endometrium and ovary are reported in Table 6. Survival was relatively shorter for cases with ovarian cancers, median survival being reached at 11 months, and one third only of the cases surviving at 24 months, while by the same interval 71.9% and 82.1% respectively of the cases with cancers of the cervix and of endometrium were alive, and more than 60% of them were surviving five years after diagnosis.

Discussion

In Ragusa, cancers of the genital tract significantly contribute to morbidity and mortality for neoplastic