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5-YEAR RECURRENCE RATE AND DISEASE-FREE SURVIVAL FOR COLORECTAL CANCER IN CANTON TICINO, SWITZERLAND, 2005-2010

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Background Aim of the study was to assess the recurrence rate (RR) and the disease-free survival (DFS) of colorectal cancers (CRC) after curative surgery in Canton Ticino.

Methods Data were selected from the Ticino Cancer Registry database. We considered non-metastatic CRC (Mo, stage AJCC 7th ed. I-III) diagnosed in Ticino during the period 2005-2010 and undergoing curative surgery within 6 months from the incidence date with free margins (R0). Follow-up was at 31.12.2016. We considered local recurrence (neoplasm arising in the same localization according to the fourth digit subsite of ICD-O-3 classification) and lymph node/distant metastasis. 5-year RR and DFS probability were analysed for colon and rectum.

Results 919 CRC diagnosed during 2005-2010 were included in the analysis. 170 patients (18.5%, CI95%:16.0%;21.0%) experienced local recurrence or lymph node/distant metastasis, while the remaining 749 patients (81.5%; CI95%:79.0%;84.0%) were disease-free 5 year after surgery. The 5-year DFS probability was 79.6%; factors influencing significantly the DFS probability were stage ($p < 0.0001$) and tumour localization ($p = 0.0032$).

Discussion/conclusion Our results were compared with the available literature data, confirming the risk factors associated with the increased risk of recurrence. Cancer recurrence strongly impacts on patients' quality of life and it is related to quality of care, representing an indicator to be observed at population-based level with more specific analysis, for example in function of patients' characteristics.

CS-10

RESIDENCE IN PROXIMITY OF A COAL-OIL-FIRED THERMAL POWER PLANT AND RISK OF LUNG AND BLADDER CANCER IN NORTH-EASTERN ITALY. A POPULATION-BASED STUDY, 1995-2009

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We assessed lung and bladder cancer risk in people living near a coal-oil-fired thermal power plant in an area of north-eastern Italy covered by a population-based cancer registry. Incidence rate ratios (IRR) by sex, age, and histology were computed according to tertiles of residential exposure to benzene, nitrogen dioxide (NO₂), particulate matter (PM₁₀), and sulfur dioxide (SO₂) among 1076 incident cases of lung and 650 cases of bladder cancers. In men of all ages and in women under 75 years of age, no significant associations were observed. Conversely, in women aged = 75 years significantly increased risks of lung and bladder cancer were related to high exposure to benzene (IRR for highest vs. lowest tertile: 2.00 for lung cancer and 1.94 for bladder cancer) and NO₂ (IRR: 1.72 for lung cancer; and 1.94 for bladder cancer). In these women, a 1.71-fold higher risk of lung cancer was also related to high exposure to SO₂. The findings of this descriptive study indicate that air pollution may have a role with regard to the risk of lung and bladder cancers, limited to women aged = 75 years. Such increased risk warrants further analytical investigations.